

HMM

MALAYSIA

JULY 2015 // VOL 13 ISSUE 8
RM12.72 (Inclusive of 6% GST) (WM)
RM14.84 (Inclusive of 6% GST) (EM)

THE POWER TO DECIDE
hardwaremag.com | hardwarezone.com.my
f/myhwm | t/myhwz



MAINSTREAM SMARTPHONES UNDER RM1,000 TO CONSIDER

TEST

APPLE MACBOOK
Ultimate portability

PEBBLE TIME
Smartwatch reloaded

FEATURE

**TOP PICKS FROM
COMPUTEX 2015**

**MARCH OF THE
STEAM MACHINES**



Official Magazine for
PLAZA LOW YAT

PP 18407/03/2014(033808) ISSN 1675-4883





Professional DJ headphones

in collaboration with

**ARMIN
VAN BUUREN**

innovation ✦ you



A5-PRO
Professional DJ
headphones

PHILIPS



Stereo to surround, on demand

The Philips Fidelio E5 delivers all the dynamic effects and nuances of your favorite music or movies. To experience truly immersive surround sound, simply detach its wireless speakers and place them at the rear of the room. Enjoy music and movies as they are meant to be heard with Philips Fidelio.

Join the obsession at Philips.com/fidelio

innovation  you



Philips Fidelio E5
Wireless surround cinema speakers
CSS7235Y



PHILIPS
Fidelio

GET YOUR
Daily Dose
of Tech
with
hardwarezone.com.my

MALAYSIA
**HARDWARE
ZONE**.COM





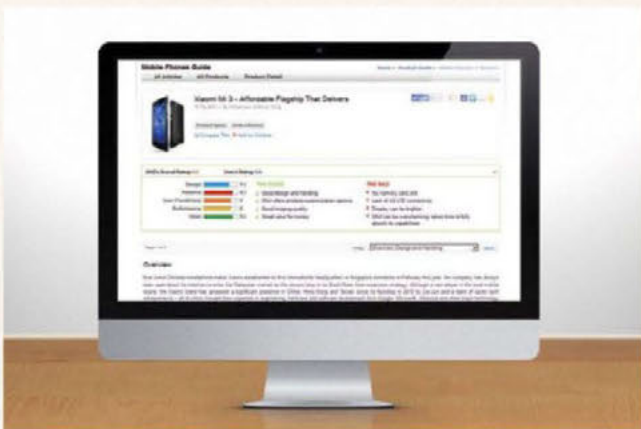
News

Never miss a beat on the latest tech happenings both locally and around the globe.



Features

Stay informed through our comprehensive event coverage, feature articles and interviews.



Reviews

Find out how you can make the right purchase decisions with our in-depth, meticulous and unbiased reviews.



HDZ.TV

Get first-hand glimpses into industry trends, product previews and interviews on our very own video channel.



Forums

Got something on your mind that you want to share? Register today to get opinions on tech products, trends, and more.



A BluInc Magazine

Follow us on [f/myhwm](#) and [t/myhwz](#)





WHERE DREAMS ARE MADE

Gamers are no doubt still reeling from the onslaught of announcements from E3 2015. Never in their wildest dreams would they have guessed that Sony's conference would open with *The Last Guardian*, an assumed-vaporware due to years of development delays, followed by a cinematic teaser for what seems to be a full-blown remake of *Final Fantasy VII*, which helps to erase the bad taste left by Square Enix during the PlayStation Experience keynote back in December.

That's all well and good, but nothing could prepare the crowd for *Shenmue III*. Yes, it's the sequel Dreamcast fans have been pining for over more than a decade. The legendary Yu Suzuki himself took to the stage to announce the Kickstarter campaign, which immediately surpassed the US\$2 million funding goal in less than 10 hours. At the rate things were going, the world would have surely imploded if Valve actually turned up and announced *Half-Life 3* at the PC Gaming Show.

It's truly an exciting time to be a gamer, and come November, we can finally welcome the first wave of Steam Machines into our humble abode. Some of you may be wondering how are they any different from the gaming-capable mini PCs. Well, we have just the thing for you this issue on page 141 ("March of the Steam Machines").

Also in this issue, we share our top picks from COMPUTEX 2015; how to get the most bang for your buck when it comes to mainstream smartphones under RM1,000; as well as the ways technology benefits the golf lifestyle as part of our 13-page GolfTech special on page 79.

Michael Low

EDITOR

Clarification: The price of the ECS LIVA X (reviewed in HWM June 2015) was stated as RM899, which is indicative of the Office 365 Personal bundle. – Ed.

EOS
DIGITAL

Canon
Delighting You Always

OPEN YOUR EYES
TO A WHOLE NEW WORLD

50.6 MEGA
PIXELS
CMOS

50.6 MEGAPIXELS
AND EACH OF THEM LEGENDARY

Every stunning picture begins with a vision of legendary proportions. And when you think of legendary DSLR cameras, the new EOS 5DS and EOS 5DS R* will stand out. Because with more than twice the resolving power at 50.6 megapixels, the EOS 5DS and EOS 5DS R* will give you unbelievable detail at an unprecedented resolution.

That's what legends are made of.

*with low-pass filter cancellation

Insist on an original warranty issued by Canon Marketing Malaysia.

CANON MARKETING (MALAYSIA) SDN BHD (158419-H):

HEAD OFFICE & SHOWROOM: Block D, Peremba Square, Saujana Resort, Section U2, 40150 Shah Alam, Selangor Darul Ehsan, Malaysia.
Nationwide Customer Careline: Tel: 1800-88-2000 **General Line:** Tel: 03-7844 6000 **Fax:** 03-7847 7222 **Website:** www.canon.com.my

BRANCHES:

• **PENANG** Tel: 04-238 3838 • **IPOH** Tel: 05-255 6311 • **MALACCA** Tel: 06-283 8331 • **JOHOR BAHRU** Tel: 07-355 4777
• **KUANTAN** Tel: 09-517 3688 • **KUALA TERENGGANU** Tel: 09-630 5688 • **KUCHING** Tel: 082-575 188 • **KOTA KINABALU** Tel: 088-233 800



EOS 5DS

EOS 5DS R

DIGIC 6
DUAL

61
High Density
Retroscreen AF

150,000
RGB+IR Metering
Sensors

Mirror Vibration
Control System

Crop
FUNCTION

Made in
JAPAN

[canoncamerasia](https://www.facebook.com/canoncamerasia)

CANON IMAGE SQUARE:

• **SURIA KLCC** Tel: 03-2166 2382
• **MID VALLEY** Tel: 03-2282 7037
• **SUNWAY PYRAMID** Tel: 03-5633 1818
• **PENANG** Tel: 04-262 3191

CANON EOS BOUTIQUE:

• **PENANG** Tel: 04-228 8858
• **SELANGOR** Tel: 03-5612 0337

CONTENTS

J U L Y 2 0 1 5

THINK

43

- DOMESTICATING TECHNOLOGY
- PRINT EVERYTHING
- MID-YEAR PC TECH UPDATES
- THE STATE OF SELF-DRIVING CARS
- WIRE-FREE HOME SECURITY

IMPACT

60

- LONG-RANGE IRIS SCANNING HAS ARRIVED

Q&A

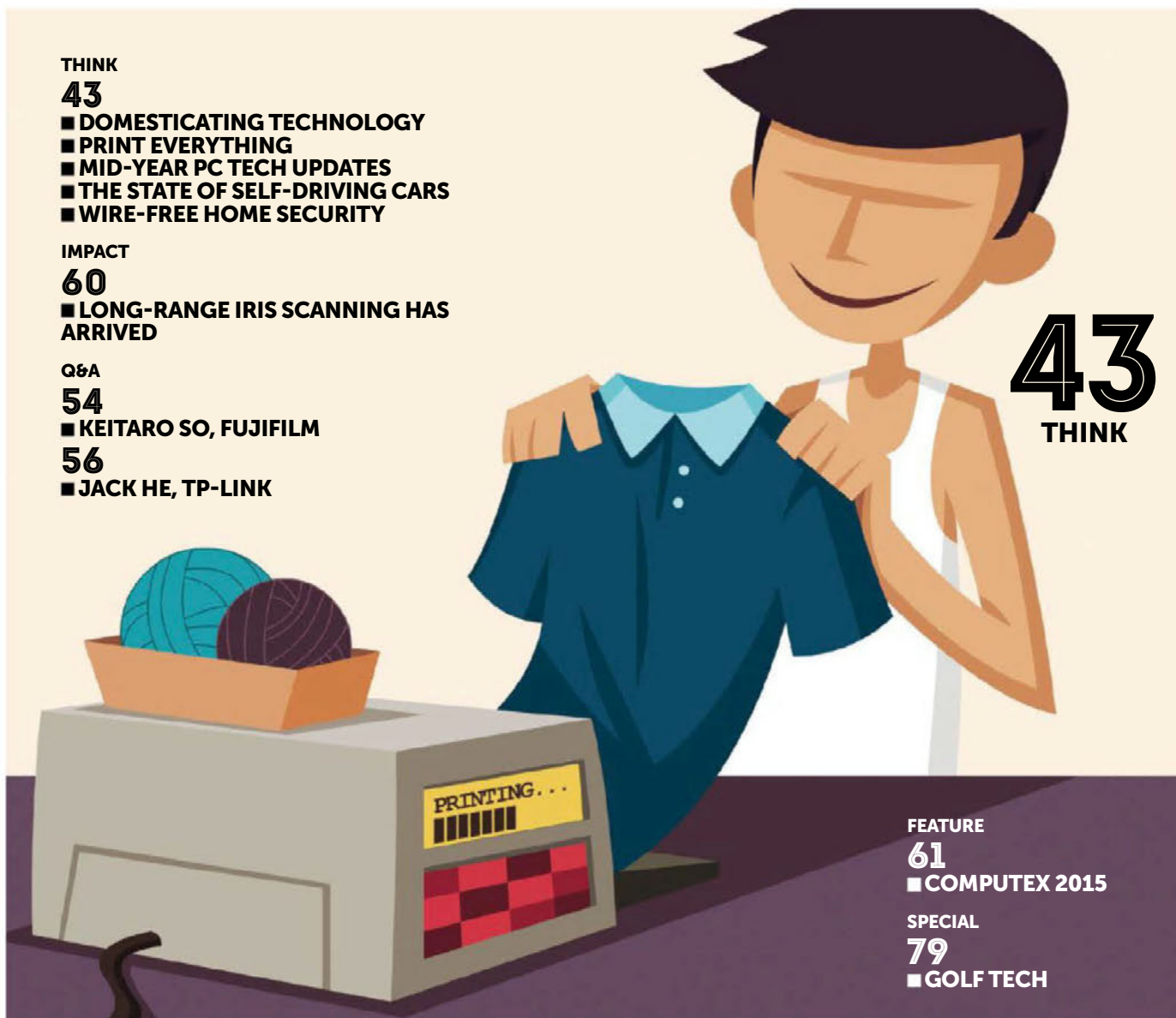
54

- KEITARO SO, FUJIFILM

56

- JACK HE, TP-LINK

43
THINK



FEATURE

61

- COMPUTEX 2015

SPECIAL

79

- GOLF TECH

FOLLOW US



hardwaremag.com



facebook.com/myhwm



google.com/+hardwarezone.my



twitter.com/myhwz



youtube.com/HardwareZoneMY



@hardwarezonemy



**YOU WANT BROADBAND THAT
MAKES IT EFFORTLESS. WE SET IT UP.**



P1 has changed the game. Now you'll always be a winner on broadband that lets you surf, stream and download like a champion. Are you **#ReadyToP1ay**?

ForHome® Broadband

Unlimited Quota

Free WiFi Modem



RM

0

**upfront fee
first month
subscription**

Sign-up now at ReadyToP1ay.com.my



built for more

Terms and conditions apply.



11
GEAR



61
FEATURE



11

GEAR

Cutting-edge technology

93

MAINSTREAM SMARTPHONES

- ASUS ZenFone 2
- Lenovo A7000
- Microsoft Lumia 640 LTE
- OPPO Mirror 3
- Phicomm P660
- Xiaomi Mi 4i
- ZTE Blade 6

107

REVIEWS

- Alienware 15
- Allfine WDB-02 AI Mini PC
- Apple MacBook (12-inch, 2015)
- Arlo by Netgear
- Armaggeddon Panzer III Elefant
- AudioBox K800
- DJI Phantom 3
- Gigabyte G1 Gaming GeForce GTX 980 Ti
- Kingston HyperX Savage SSD (240GB)
- Philips HTD5550
- TDK TREK Flex

165

LEARN

- Succeeding Hubble: James Webb Space Telescope
- Watch astronomical complications
- HTC One M9+'s Duo Camera mode
- FUJITSU rechargeable batteries
- SanDisk iXpand Flash Drive

176

REWIND



94
TEST



54
Q&A



PHOTOGRAPHY VERONICA TAY &
CHERYL RAHARJO
ART DIRECTION KEN KOH & IAN CHONG

All prices quoted in this magazine
are in Malaysian Ringgits (MYR),
unless otherwise specified.

CASIO®

Travel
Selfie
ZR Series

ZR3500

Just Share It!
- EXILIM Auto Transfer -



18 MONTHS* WARRANTY
UPON E-WARRANTY REGISTRATION



WE (White)



BE (Beige)



PK (Pink)



YE (Yellow)

EXILIM Auto Transfer automatically sends the photos you take to your smartphone.

LET'S ENJOY
SELFIE

EXILIM

OFFICIAL DISTRIBUTOR:



MARCO HERITAGE (M) SDN. BHD.

No. 2, 2nd Floor, Jalan Segambut, 51200 Kuala Lumpur, Malaysia.

+603.4043.3111 +603.4041.9315 enq.dsc@marco-groups.com

CasioExilimMalaysia

www.marco-groups.com www.casio-intl.com/dc/

* Casio Exilim Camera distributed by Marco Heritage are entitled 18 months warranty upon e-warranty registration.

GROUP MANAGING EDITOR

ASTER LIM asterlim@bluinc.com.my

EDITORIAL

(editorial@hardwaremag.com)

Editor

MICHAEL LOW mike@bluinc.com.my

Contributing Editors

ZACHARY CHAN

ALVIN SOON

NG CHONG SENG

JAMES LU

Senior Tech Writers

BRYAN CHAN bryan@bluinc.com.my

JOHN LAW johnlawec@bluinc.com.my

KENNY YEO

MARCUS WONG

Tech Writers

AZIZUL RAHMAN ISMAIL azizul@bluinc.com.my

AMMAR UZAIR AMINUDDIN ammaruzair@bluinc.com.my

IAN CHEE cheechungyeon@bluinc.com.my

PETER CHU peterchu@bluinc.com.my

WONG CHUNG WEE

SALEHUDDIN HUSIN

KOH WANZI

CREATIVE

Creative Director

FREDERICK LIM fred@bluinc.com.my

Junior Art Director

LAWRANCE GAN lawrance@bluinc.com.my

Associate Art Director

KEN KOH

Senior Designer

CHANG MING HIN minghin@bluinc.com.my

Graphic Designer

IAN CHONG

Junior Graphic Designer

ASMUNI ABDUL RAHMAN asmuni@bluinc.com.my

ADVERTISING SALES

Director

HENG CHIP HIAN heng@bluinc.com.my

SIMON LING simon@bluinc.com.my

Senior Advertising Sales Executive

JASON WONG jason@bluinc.com.my

Advertising Sales Executive

TEO FEN LEIGH fenleigh@bluinc.com.my

MARKETING

Marketing & Advertising Operations

MONIQUE TAN tanernyee@bluinc.com.my

ADMINISTRATION

Administration Manager

LAVINYA SHALINI lshalini@bluinc.com.my

PUBLISHING SERVICES

Senior Circulation & Subscription Manager

FRANCINE LOUIS francine@bluinc.com.my

Circulation & Subscription Manager

KENNETH SEW kennethsew@bluinc.com.my

Circulation & Subscription Executive

MOHD FADZLI SALEH fadzli@bluinc.com.my

Production Manager

SATVINDER skaur@bluinc.com.my

Assistant Production Manager

KONG AH KUAN ahkuan@bluinc.com.my

Assistant Traffic Manager

LEE PHAIK LING phaikling@bluinc.com.my



CHIEF EXECUTIVE OFFICER

DATIN AZLIZA AHMAD TAJUDDIN azliza@bluinc.com.my

SENIOR CONSULTANT

LOO KIT CHOONG kitchoong@bluinc.com.my

GENERAL MANAGER, BUSINESS DEVELOPMENT AND NEW MEDIA

MOHD FAIZAL ABUDUL HADI faizal@bluinc.com.my

HEAD OF CORPORATE COMMUNICATIONS

MARGARET SEBASTIAN msebastian@bluinc.com.my

SENIOR HUMAN RESOURCES MANAGER

HABIBAH MUHAMMAD bib@bluinc.com.my

SENIOR FINANCE MANAGER

SHIREEN GOH shireengoh@bluinc.com.my

RESEARCH MANAGER

AUDREY CHAN audreychan@bluinc.com.my

INTERNATIONAL OFFICES

Singapore Office

Zachary Chan (Editor)
82 Genting Lane, Media Centre
Level 7, Singapore 349567
Tel: (65) 6319-6319,
Fax: (65) 6319-6227
Email: sales@hardwaremag.com

Indonesia Rep. Office

Martin Wijaya (Chief Editor)
PO Box 6169 JKUPL 14440
Jakarta, Indonesia
Tel: (62) 21 612 0233/0955
Fax: (62) 21 6220 2580
Email: info.id@hwzcorp.com

Philippines Rep. Office

Marvin R. Velasco (Editor)
Unit B-2, Topy Main Building, No. 3
Economia Street, Bagumbayan,
Quezon City 1110, Philippines
Tel: (63) 2634 9179
Fax: (63) 2634 9180
Email: sales.ph@hwzcorp.com

Taiwan Rep. Office

Dennis Chou (Asia Media Contact)
2F-2, No.35, Sec 2,
Fushing South Road,
Taipei 106, Taiwan
Tel: 886-2-8773-4199
Fax: 886-2-8773-4200
Email: sales.tw@hwzcorp.com

HWM (HardwareMAG®) Malaysia is published by Blu Inc Media Sdn Bhd (7408-K)

Lot 7, Jalan Bersatu 13/4, Section 13, 46200 Petaling Jaya, Selangor, Malaysia

Tel: (603) 7952 7000 Fax: (603) 7960 0148 Email: enquiries@bluinc.com.my

Printed By Percetakan Lai Sdn Bhd. No 1, Persiaran 2/118c, Kawasan Perindustrian Desa Tun Razak Cheras. 56000 Kuala Lumpur.

Tel: (03) 9173 1111 Fax: (03) 9173 1969

Distributed By MPH Distributors Sdn Bhd (5048-A)

HWM (HardwareMAG), Copyright and trademark registered by SPH Magazines Pte Ltd. All rights reserved.

The trademark and content may not be used or reproduced without the permission of SPH Magazines Pte Ltd and Blu Inc Media Sdn Bhd.

No part of this magazine shall be reproduced in any form without the written consent from the Publisher. Comments, opinions and views of individual contributors expressed in the magazine do not necessarily represent those of the Publisher. Under no circumstances whatsoever shall the magazine/publisher be liable for any direct, indirect, special, incidental or consequential damages that may arise out of or in connection with the use of the information made in the magazine.

All views, opinions, results and benchmarks used in this publication are based on the prerogative and expertise of the writer(s) serving the respective market and readership of which the publication and products are marketed in.

Log on to www.hardwarezone.com.my & www.facebook.com/myhwm for a complete online experience.

NEW THIS MONTH

Every month, we receive dozens of product announcements and mentions, sit through many a launch event and try out all kinds of devices. All these products are then carefully curated by our crack team of tech gurus. The final list is presented here in Gear and it is our hope you'll find something to geek-out to.



MORE INSIDE >

PHILIPS SHQ1305WS
Tough, featherweight
headphones.

INTEL COMPUTE STICK
Little stick, big surprise.

ECS LIVA CORE
Small size, big numbers.

AORUS X5
Portable SLI gaming powerhouse.

AUDI A7 CONCEPT DRIVING

When we first saw the Audi A7 Concept Driving, it was during NVIDIA's GTC 2014. This self-driving car drove itself up on to the stage during the keynote, surprising the crowd. Slated for a 2020 release date, it's one of the most technologically advanced cars that Audi has ever designed. Its on-board zFAS computer is powered by NVIDIA's Tegra K1 SoC, and comes equipped with futuristic features such as the Matrix LED, a digital dashboard, and a dual radar and laser sensor that allows the car to drive itself.

www.audi.com

PHILIPS SHQ1305WS

The ultra-lightweight, IPX4-rated SHQ1305WS sports earphones is the perfect companion for your workout routine. Its 8.6mm neodymium drivers are capable of delivering spotless audio quality, and the fact that its cable is reinforced with Kevlar means you won't have to worry about it getting snagged onto anything in your path. As a safety precaution, instead of drowning out your surroundings, the SHQ1305WS utilizes an open acoustic design to ensure that you're always in touch with the world around you.

Gibson Innovations

1 800 880 180





Game, Set, Go! Ready when you are!

The HyperX SSD functions at incredible speeds, so you can start your game in an instant.

The HyperX SSD's ultra-responsive multitasking abilities will take your system over the edge and provide better speed, power, and greater efficiency, so you can crush your opponents with the utmost confidence.



HyperX Fury SSD
Powered by SandForce controller
SATA Rev 3.0 interface
Read 500MB/s, Write 500 MB/s



HyperX Savage SSD
Powered by Phison controller
SATA Rev 3.0 interface
Read 560MB/s, Write 530MB/s



HyperX Predator PCIe SSD
Powered by Marvell controller
PCIe Gen 2.0x4 interface
Read 1400MB/s, Write 1000MB/s



Kingston.com
©2015 Kingston Technology Far East Co., Ltd (Asia Headquarters)
No. 1-5, Li-Hsin Rd., 1, Science Park, Hsin Chu, Taiwan, R.O.C.
All rights reserved. All trademarks and registered trademarks are the property of their respective owners.

Amble Action Sdn Bhd
Tel: 03-79686899

Convergent Distribution(M) Sdn Bhd
Tel: 03-21441881

Ingram Micro Malaysia Sdn Bhd
Tel: 03-79528188





CANON EOS 5DS

The EOS 5DS shares the same DNA as the 5DS R, but what makes it different from its twin brother is that it doesn't come equipped with a low-pass filter cancellation feature. Despite the omission, the 50.6MP full-frame DSLR is nevertheless capable of producing images in great detail and clarity. It features a new Fine Detail Picture Style preset to give users more control over the sharpening options, while also allowing them to capture 30.5MP and 19.6MP images with the 1.3x and 1.6x crop modes, respectively.

Canon Marketing (Malaysia) Sdn Bhd
1 800 88 2000



INTEL COMPUTE STICK

Only slightly larger than your average USB flash drive, the Intel Compute Stick turns your HDMI display into a PC that runs Windows 8.1 with 2GB of RAM, 32GB of internal storage space, as well as an Intel Atom Processor Z3735F that provides the computing power. Connect a wireless keyboard and mouse, and you can be working as if you were using an ordinary PC.

www.intel.my

ECS LIVA CORE

Mini PCs have never looked this good. With diamond-cut edges and sleek black finish, the LIVA Core is as much to behold as its performance. Equipped with Intel's 14nm Core M processor, Intel HD Graphics 5300, and 802.11ac Wi-Fi, this mini PC is more than capable of handling your everyday tasks and casual gaming needs. The cool, fanless device is also capable of supporting two independent output displays, and can be mounted behind most displays.

INGENS Sdn Bhd (03) 7688 9888



FREE

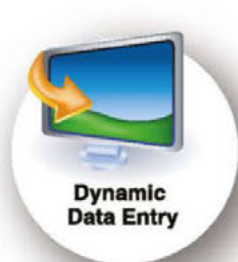
GST Document Capturing / Imaging Software

FUJITSU

shaping tomorrow with you

Store your documents digitally with Complimentary Cumulus Pro Scan to Cloud award winning application (worth RM1,000) when you purchase the following award winning Fujitsu scanners.

Promo validity: June to 31 December 2015



fi-7160 & fi-7260 Document Scanner



fi-7180 & fi-7280 Document Scanner



* Terms & conditions apply

DEMO and Enquiries:

Kindly contact **Damien @ +6017 360 5502** or email to damien.lim@my.fujitsu.com
Alvin Loe @ +6012 291 1563 or email to alvinloe@dpaper.com.my

CORSAIR BULLDOG + LAPDOG

If you wish to have a 4K-ready gaming rig in your living room without needing to turn it inside out to find the extra space for it, Corsair has the perfect solution in the form of the Bulldog – a customizable, gaming console-sized PC that can accommodate an NVIDIA GeForce GTX TITAN X. It works best with what Corsair is calling a Lapdog – an all-in-one, portable gaming control center that sits across your lap, and comprises a 7- by 11-inch mouse mat area and a keyboard dock.

Cudo Technologies (M) Sdn Bhd
(03) 2148 1177





ZOTAC GEFORCE GTX 980 TI ARCTICSTORM

Zotac's GeForce GTX 980 Ti ArcticStorm is essentially a reference GTX 980 Ti graphics card on steroids. It boasts a mighty 6GB of GDDR5 video memory, 2,816 CUDA cores, a base clock of 1,025MHz, a boost clock of 1,114MHz, and a memory clock speed of 7,010MHz. Helping it to stay cool and composed is its ArcticStorm hybrid cooling system, which consists of three massive 90mm fans and a liquid-cooling system.

Cyntrix Technologies Sdn Bhd
(03) 5880 5552



AORUS X5

The AORUS X5 features power that you wouldn't expect in such a thin 15.6-inch gaming notebook. Powering the AORUS X5 are two NVIDIA GeForce GTX 965M GPUs running in SLI to give you the graphical processing power you need to run the latest games. This is also one of the first few notebooks to sport NVIDIA's G-SYNC technology, so that your game runs with no tearing on the 2,880 x 1,620 display.

INGENS Sdn Bhd (03) 7688 9888



ALFINE®



Windows



Windows 8.1

Microsoft official license



1 free for year

AI MINI PC WDB-02



Quad Core

2GB DDR3

HDMI

Network

Intel Bay Trail-T/Z3735F/2GB/32GB eMMC/HDD Up to 1TB/
LAN/WIFI/BT4.0/USB-OTG 2.0/Windows 8.1



Authorized Sole Distributor:

AV FUTURE LINK (KL) SDN BHD

Address: 14, JALAN 4/152 TAMAN PERINDUSTRIAN O.U.G JALAN PUCHONG 58200, KUALA LUMPUR, MALAYSIA

Tel: +603-77832010 Fax: +603-77816295 Website: <http://www.avf.com.my> E-mail: sales@avf.com.my



SONY XPERIA Z3+

The recently announced Sony Xperia Z4 (renamed Xperia Z3+ outside of Japan) probably didn't get the reaction Sony expected from the public. It looked the same as the Xperia Z3 and had specs that weren't as huge a leap in hardware as most expected. Despite those issues, the Xperia Z3+ will probably be a solid phone, at least for PlayStation gamers. With the Xperia devices the only sources of Remote Play, if gamers want the latest phone with the ability to Remote Play, the Xperia Z3+ is it.

Sony Customer Interaction Center
1 300 88 1233

APPLE MACBOOK PRO WITH RETINA DISPLAY (15- INCH, MID 2015)

Apple's new 15-inch MacBook Pro with Retina display comes with Apple's new Force Touch trackpad, which features built-in force sensors and a Taptic Engine that delivers haptic feedback. They also have better storage performance and longer battery life. Apple updated the discrete graphics with AMD's new Radeon R9 M370X mobile GPU.

www.apple.com/my



TURNING DARKNESS INTO LIGHT

Conquer the Night with Huawei P8

The camera on the Huawei P8 is probably the most hardcore and feature-packed one we've seen on a smartphone. It's packed with a powerful DSLR-level image processor, and the world's first four-color RGBW image sensor to ensure that the photos you capture are the best that they can be – no matter the lighting conditions. It also comes complete with a dual-tone camera flash that maintains your subject's natural color tone when fired, and not turn their skin pale-white.

You won't need to be in a complete state of Zen in order to capture tack-sharp photos with the P8, as it's equipped with an optical image stabilizer that does an impeccable job at keeping the jitters at bay.

Remember the (many) instances where the photos you captured at night with your phone were almost always chock full with noise artifacts? We do. This will no longer be the case with the Huawei P8, thanks to the 'Super Night Mode', which deliberately keeps the camera's shutter open to absorb as much light as it possibly can, and subsequently generate a photo that is bright, sharp, and virtually noise-free.

But the one feature that mobile photography enthusiasts would most definitely appreciate is the P8's light-painting feature. There are four unique modes in total: Car Light Trails, Light Graffiti, Silky Water and Star Track. As you can see from the photos which we've personally taken here, they're not a gimmick – they work brilliantly well.



An indoor shot captured using the P8's HDR mode to bring out the shadows as casted by the background light.



These two photos were captured using the 'Car Light Trail' mode. We relied on a tripod to keep the P8 perfectly steady, and to avoid any unwanted motion blur.



The Huawei P8's light painting mode works brilliantly well.



'Super Night Mode' keeps the camera's shutter open for a specific amount of time (this one took 17 seconds) to make use of all available light. Again, we used a tripod to stabilize the device while its shutter was open.

SECOND TO NONE

Samsung Galaxy S6 and Galaxy S6 edge

When it comes to smartphones with beauty and elegance, Samsung's Galaxy S6 and S6 edge are the epitome of these two points. Why is that, you ask? Here are several reasons.

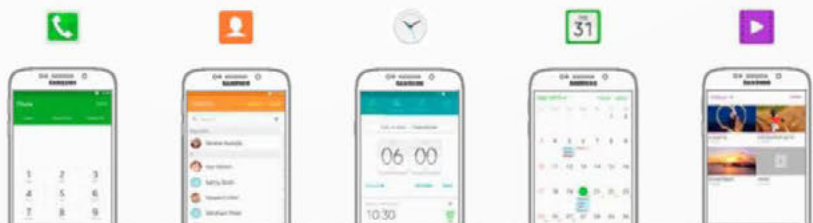


Smart Manager

Save yourself the trouble of having to open and search the settings menu. With the Galaxy S6's Smart Manager app, you can easily see the remaining battery life, available storage, memory usage, or checking the security status of your device.

Simplicity

Simple and clean – That is the new philosophy of the Galaxy S6 series. The TouchWiz interface has been reworked and simplified. Text is now incredibly clear and all apps are labeled clearly with short descriptions of their functions.



Themes

Download a new theme for the Galaxy S6 whenever you want to spice things up a little. Feeling cute? Then, download the Peperico theme. Want to feel like a superhero? There's the Avengers theme to make your phone look more heroic. Whatever your moment, Samsung's got it covered.

Information Ticker (Galaxy S6 edge only)

Never miss out on the most important news updates of the day with the Information Ticker on your Galaxy S6 edge. Set the Information Ticker to display the top stories and sports results from your favorite news feeds, as well as trending hashtags and topics from your Twitter network.



Source: global.samsungtomorrow.com

Samsung Careline 1 800 88 7799

A CLOUD OF YOUR OWN

BRING THE CLOUD HOME WITH WD MY CLOUD™ AND MY CLOUD™ MIRROR™



My Cloud™

Nobody should ever have to go through the daunting task of deciding which of their favorite photos or videos should be deleted to free up precious storage space on their mobile device. With the **My Cloud™**, you won't ever have to deal with that predicament, as it features storage capacities ranging from 2TB right up to a whopping 6TB – more than enough for keeping all of your smartphone's photos, videos, music, documents, and everything in between. It even comes with an USB 3.0 port, which can be used to connect an external hard drive for additional storage space. You won't have to worry about the content of your My Cloud™ drive leaking out onto the Internet either, because it is confined strictly within the boundaries of your home network. Its dual-core processor and a gigabit Ethernet port ensures that you spend less time waiting for files to transfer, and more time making the most out of them.

My Cloud™ Mirror™

It has been said that there is no greater agony than having years' worth of important files vanish into oblivion as a result of a failed hard drive. Instead of living in regret for not backing up your files earlier, why not spare yourself the drama by getting your hands on the **My Cloud™ Mirror™**? It's fitted with two hard drives configured in Mirror Mode (RAID 1) by default, so if one drive were to unfortunately fail, there will be a secondary drive on hand to immediately restore your files. If speed is what you need instead, you can choose to set up the drives in RAID 0 mode, or have both the drives work independently of each other in JBOD (Just a Bunch of Disks) mode. The My Cloud™ Mirror™ comes with storage capacities ranging from 4TB to 12TB, and comes complete with two USB 3.0 ports, which can be used to further supplement its generous storage space.

To learn more about WD products, please visit www.wdc.com



Reaching You The Way

mobile



U Mobile's accelerated growth from a young telecommunications company to a contender in the industry is one that is filled with bold moves, refreshing innovations, and customer-centric services.

Recently, the company continued the beat of its drum towards the top with the launch of a unique distribution strategy: the deployment of **100 U Mobile roving trucks**. The goal of these trucks is to bring U Mobile products, services, and award-winning customer experience to the masses.

The roving trucks will be deployed in phases to cater to suburban towns and areas in Central, Northern, Southern, and East Coast regions of Peninsular Malaysia.

This expands U Mobile's presence and availability beyond its 10,000 traditional dealers and brand outlets, and over 31,000 alternate channels that include hypermarkets, convenience stores, and retail outlets.



#CONFIRMSURE

First Telco-Based Easy Installment Plan

With the roving trucks come U Mobile's latest offerings for two of the most desirable smartphones today, the **iPhone 6** and **iPhone 6 Plus**. With the **U MicroCredit Installment plan**, both prepaid and postpaid customers will be able to take home the new iPhone for as low as RM98 per month.

With this initiative, those in the suburban towns and outskirt areas within Peninsular Malaysia will no longer need to go far to get their hands on U Mobile's attractive prepaid and postpaid plans.

The U Mobile roving trucks can be found in popular locations in suburban towns and areas, such as night markets, farmer's markets, and special events.

This initiative is in conjunction with U Mobile's RM1.5 billion network expansion, which adds 2,000 additional 3G and 4G LTE sites across the country.

U MOBILE
NOW ON
4G

#DATA
STRONG
NETWORK

Here's What the Users Have to Say

"Choose U Mobile and enjoy the cheapest price!"

— Amy from KL chose U Mobile to purchase her iPhone 6 because the prices offered by U Mobile are the most affordable.



"I never thought I'd find an iPhone 6 being sold for as low as RM98. I own one now, thanks to U MicroCredit, and it's absolutely worth it!"

— Mahaya Dahlan from Rawang had a mishap with her phone and needed a replacement.

"No doubt, with prices as low as RM98, everyone can bring their dream phones home!"

— Jerry from Kuching was so happy when he got two iPhone 6 for himself.

To learn more about U Mobile, please visit

u.com.my

KINGSTON HYPERX CLOUD II PINK

For those unfamiliar with the headset, the HyperX Cloud II is pro-gaming optimized, and is capable of hardware-based 7.1 virtual surround sound, and is USB-powered for PCs and Macs and 3.5mm stereo-compatible for PS4 and Xbox One. You also get a digitally enhanced, noise-cancelling mic with automatic gain control and echo cancellation so that your teammates can hear you as clearly as you hear them.

Amble Action Sdn Bhd (03) 7968 6899

Convergent Distribution (M) Sdn Bhd
(03) 2144 1881

Ingram Micro Malaysia Sdn Bhd (03) 7952 8188



NVIDIA SHIELD ANDROID TV

Whether it's streaming 4K content or gaming, the SHIELD Android TV can handle them both with flair, thanks to NVIDIA's Tegra X1 processor. If you're a casual gamer, you'll find that the abundance of casual games on Google Play will be keeping you happy and occupied for quite a while. But if you're of the hardcore type, you would definitely want to sink your teeth into the buffet of triple-A titles offered on NVIDIA Grid – the company's own cloud based game-streaming service.

shield.nvidia.com



BUNGBUNGAME KALOS 2

Introduced during COMPUTEX 2015, the KALOS 2 tablet PC sports some relatively impressive hardware. It's powered by Samsung's Exynos 7420 octa-core processor, sports a QHD display with a resolution of 2,560 x 1,440, and will run on Google's upcoming Android M OS. Additionally, it will also be one of the first Android devices to sport the new USB Type-C interface.

www.bungbungame.com



TT ESPORTS POSEIDON Z RGB

As the name suggests, the Poseidon Z RGB mechanical gaming keyboard offers a full RGB backlight, complete with five lighting presets to take advantage of the 16.8 million colors. It features Tt eSPORTS-certified mechanical blue switches that are backed by a 5-year warranty, while also equipped with 100-percent anti-ghosting keys, N-key rollover, and enhanced macros support.

AV Future Link Sdn Bhd (03) 7783 0011

MAKE it
POSSIBLE



NOW IS HUAWEI P8

Designed to inspire. Inspired to design.

See more in the dark

Superb low light performance with 13MP rear camera with OIS, RGBW sensor and ISP

Paint with light

Light painting made easy with instant preview

Designed to inspire

Sleek and bold metallic body with 5.2" FHD screen

SONICGEAR NEOPLUG LEAF

There's nothing better that can complement your eco-friendly, tree-loving lifestyle than the nature-inspired design of SonicGear's NEOPlug Leaf earphones. It has 10mm drivers with sensitivity levels of 102db/mW that can satisfy the music lover in you, an impedance of 16 ohms, as well as an in-line microphone and a tangle-free flat cable that prevents the NEOPlug Leaf from becoming a bundled mess in your pocket.

Leapfrog Distribution Sdn Bhd (03) 7803 6703



NETGEAR NIGHTHAWK X6

Featuring wireless speeds of up to 3.2Gbps, three Wi-Fi bands, Smart Connect intelligence, and Dynamic QoS, the Nighthawk X6 utilizes a 2.4GHz band and two 5GHz bands, along with powerful amplifiers and six high-performance external antennas to provide a wide coverage area, even with the shorter range, but speedier bands. Within it is a 1GHz dual-core processor and three offload processors that together create a very powerful package.

Kaira Technologies (M) Sdn Bhd (03) 7955 3669



OAXIS INKCASE i6

Figuring out a way to make your iPhone 6 stand out from the crowd? The easiest way would be to fit a secondary, 4.6-inch (480 x 800) e-ink screen on its back, courtesy of the OAXIS inkCase i6. As it connects to the iPhone via Bluetooth, it can be used to display notifications, weather updates, and even emails using the accompanying inkCase Now app. Best of all, the e-ink screen's low-power, 'always-on-display' leaves you no room to overlook any incoming messages.

www.oaxis.com



SONY SMART B-TRAINER

Designed as an all-in-one fitness tracker, the Smart B-Trainer has an independent music player that comes with 16GB of internal storage. With a water- and dust-resistant rating of IPX5 and IPX8, the device's main feature is its built-in heart rate monitor which can accurately read fitness levels and actively keep it at an optimum level.

Sony Customer Interaction Center 1 300 88 1233

SONICGEAR SPARKPLUG TURBO

The cable on the pint-sized SPARKPlug Turbo is flat and tangle-free, so you won't have to worry about them becoming a jumbled mess while they're in your pocket or bag. Helping to churn out beautiful tunes are its 10mm drivers that have a sensitivity level of 102dB/mW. The SPARKPlug Turbo has an impedance of 16 ohms, and comes replete with an in-line microphone and remote.

Leapfrog Distribution Sdn Bhd (03) 7803 6703



TT ESPORTS CONTOUR GAMING CONTROLLER

Take your mobile gaming prowess to new heights with the Tt eSPORTS Contour Gaming Controller. It has a 10-hour battery life and is compatible with Apple devices running iOS 7 and above. Its adjustable clip can fit all iPhone 5 and iPhone 6 models, as well as the fifth-generation iPod touch. Its layout of buttons resembles that of a regular console controller, and includes a directional-pad, dual-analog sticks, two sets of shoulder/trigger buttons and the familiar 'ABXY' buttons.

AV Future Link Sdn Bhd (03) 7783 0011



MSI GT72 2QD DOMINATOR G

The GT72 2QD Dominator G not only features discrete GeForce GTX 970M graphics, but it is also one of the first notebooks to feature NVIDIA's G-SYNC technology for its 17.3-inch Full HD display. Powering it all is a 5th generation Intel Core i7 processor, providing performance when you need it the most. Additionally, Audio Boost 2 – along with Nahimic Sound technology – gives one of the best audio experiences in a gaming notebook.

MSI Malaysia 1 300 22 1986



COOLER MASTER MASTERCASE PRO 5

The MasterCase Pro 5 is a modular PC casing from Cooler Master, with parts that are interchangeable with others from the MasterCase 5 series. This is the world's first mid-sized modular tower with exterior expandability that gives users control over how the case looks and functions, which can be changed by having the exterior pieces like doors and panels replaced.

Ban Leong Technologies Sdn Bhd (03) 7956 6300

ACER REVO ONE

Mini PCs are progressively becoming a big thing, and not wanting to miss the bandwagon is Acer and its new mini PC, the Revo One. This fully-functional, 1.1kg mini PC is equipped with a 1.4GHz Intel Celeron 2957U processor, Intel HD Graphics, 2GB of DDR3 RAM (expandable to 8GB), and a 500GB hard drive. The Revo One will be running on Windows 8.1 with Bing OS.

📞 Acer Sales and Services Sdn Bhd 1 800 88 1288



MSI X99A GAMING 9 ACK

As the recipient of COMPUTEX 2015's Best Choice Golden Award, the MSI X99A Gaming 9 ACK motherboard stood out from over 450 competitors to offer much in gaming performance, and more. It's one of the first to support the new USB 3.1 standard, and it's also the first motherboard to carry MSI's proprietary Streaming Engine, a feature that allows gamers to share their gameplay in Full HD quality.

📞 MSI Malaysia 1 300 22 1986

LOGITECH WIRELESS MOUSE M238

Tired of looking at the dreary, monotonous surroundings of your office? Why not perk it up a bit with the quirky and vibrant colors of Logitech's M238 wireless mouse? Its playful design and unique patterns are bound to brighten up your day. Other features of the M238 include a wireless range of up to 10 meters, and a long-lasting battery life of up to 12 months.

📞 Logitech Malaysia 1 800 88 0719



VIEWSONIC VP2780-4K

If you're looking for a monitor that means business, look no further than the ViewSonic VP2780-4K. As its name suggests, the VP2780-4K is a 27-inch, 4K monster of a monitor that sports a resolution of 3,840 x 2,160. It takes no prisoners when it comes to color reproduction, as you can tell from its 100-percent sRGB color coverage, 10-bit color depth, 14-bit processing, 3D LUT and Delta E≤2 specifications.

📞 Kaira Technologies (M) Sdn Bhd (03) 7955 3669

📞 SDS Distribution Sdn Bhd (03) 7782 4700

D-Link®



AUTO SWITCH
TO THE BEST SIGNAL

Wi-Fi Extender



CONNECT TO THE BEST WIFI SIGNAL AUTOMATICALLY

LONG RANGE
5dBi
Detachable Antenna



DMG-112A
N300 Wireless
Range Extender



DSL-2877AL

Dual Band Wireless AC750 Router /
ADSL2+ Modem Router



DEDICATED
Gigabit
WAN PORT

ADSL
MODEM
In-Built

4G^{##}
SUPPORT

TRIPLE WAN*
FAILOVER
ADSL • WAN • 3G/4G



One-Touch
Setup App



mydlink™
Cloud Support

Ever had full connection on your device in your living room, only for it to drop to one bar after heading to your bedroom or kitchen? With D-Link's cutting-edge HomeZone AutoZoning technology, you will experience full WiFi coverage throughout the wireless network in your home wherever you go.

D-Link DSL-2877AL (AC750 All-in-One ADSL2+ Modem Router) and **DMG-112A** (N300 WiFi Range Extender) are equipped with HomeZone AutoZoning technology to communicate with each other so that your device will be connected automatically to the stronger WiFi signal in your house when you move from room to room.

Enjoy uninterrupted surfing, music and entertainment videos with D-Link today!

Limited Lifetime Warranty

f DLINKMALAYSIA y DLINKINTL w WWW.DLINK.COM.MY

24 x 7 Technical Hotline 1800-88-2880

* The router's 'Triple WAN' function using asymmetric digital subscriber line (ADSL), gigabit WAN port and D-Link 3G/4G LTE dongle allows users to connect to ADSL, cable modem, fibre optic, or 3G/4G LTE networks. Users can also set their preferred WAN priority for WAN failover to ensure continuous connectivity. Hence, no more internet downtime.
External D-Link USB LTE Dongle required.

RICOH SP 4510SF

Little in size, the SP 4510SF is a multifunction printer that is designed to tackle big jobs. With a footprint of only 42 x 43 cm, it can fit almost anywhere. It copies, prints, scans, and faxes at a crisp 1,200dpi with a speed of up to 42ppm. It can also share documents with scan-to-email, folder, URL, USB device or SD card; create searchable PDFs; and scan two-sided documents onto a single sheet of paper.

📞 Ricoh Malaysia Sdn Bhd 1 300 88 8228

**D-LINK DWR-710**

In need of high-speed Internet while you are on the go? The DWR-710 Le Petit HSPA+ router is something that you'll sorely need. The 3G dongle supports download and upload speeds of up to 21Mbps and 11.4Mbps, respectively. Sporting a petite form factor, the DWR-710 is convenient to carry and easily fits into your pocket. It also supports Wi-Fi sharing with up to eight users.

📞 AdvanceNet Technology Sdn Bhd (03) 8070 3633
 📞 SiS Distribution (M) Sdn Bhd (03) 7491 6666
 📞 Ingram Micro Malaysia Sdn Bhd (03) 7952 8188

FSP HYDRO G 850W

If you're looking for a power supply that delivers a constant electrical flow, you can't go wrong with the FSP Hydro G 850W. It's been built using server-grade components that increase conversion energy, as well as Double EMI filters – all fitted within a stylish metal casing. It's also extremely modular, allowing case modders to limit the amount of cable clutter inside a PC chassis.

📞 Nation-Tech Sdn Bhd (03) 4280 6636

**ZOTAC ZBOX RI531 PLUS**

Zotac is not new to the mini PC market, as the company recently released the ZBOX RI531 Plus, which sports an Intel Core i3-5010U processor, two DDR3-1600 slots for up to 16 GB of memory, Intel HD Graphics 5500, and dual gigabit Ethernet ports. The main selling point of the ZBOX RI530 Plus is its ability to combine two HDD/SSD storage devices into a RAID 0 or RAID 1 configuration.

📞 Cyntrix Technologies Sdn Bhd
 (03) 5880 5552

HTC ONE M9+ INK

Own the HTC One M9+ and want to stand out from the crowd? Forget customized covers! Get the limited edition HTC One M9+ INK edition instead. Created in collaboration with fashion icon and supermodel Jourdan Dunn, this smartphone features beautiful engravings inspired by body art on the back of the device. Inside, hardware specifications remain the same.

HTC Customer Service Hotline 1 800 889 855



RAZER KRAKEN PRO

Gamers are truly spoilt for choice these days, thanks to the fact that Razer has released yet another new gaming headset. It comes with in-line volume control and mic mute buttons, in addition to a fully retractable microphone. What's more, it also features foldable ear cups for enhanced portability. The Kraken Pro is available in green, black and white.

Ban Leong Technologies Sdn Bhd (03) 7956 6300



datacolor Spyder 5

Next Generation of Monitor Calibration Solutions for Passionate Photographers



Spyder 5 ELITE
EXPERT MONITOR CALIBRATION

Spyder 5 PRO
ADVANCED MONITOR CALIBRATION

Spyder 5 EXPRESS
EASY MONITOR CALIBRATION

SPECIAL OFFER

UPGRADE SPYDER 2 or 3 and receive 40% off your purchase of new **Spyder 5** and get Free Spyder Checkr "24 or Spyder Lenscal



Please submit your upgrade form at www.datacolor.com Valid until July 7, 2015

40% OFF

Terms & Condition Apply



ENGTONG SYSTEMS SDN. BHD. (72229 D)

(Selangor) No. 6, Lorong Teknologi A, Taman Sains Selangor 1, Kota Damansara, 47810 Selangor.

Tel: (03) 6143 5999 Fax: (03) 6143 6630 H/P: (016) 261-6003

(Penang) H/P: (016) 261 6044 (Mr. Kong Chee Hong)

E-mail: engtong1@gmail.com Website: www.engtong.com

(PJ-43) DC Pro Cam SB 79579323, Foto Data SB 77274696, J One Camera SB 79577778, Camera Valley 61406188, YL Camera (M) SB 79586163, QQ Camera 016-2050010 (KL-43) Advance Prosper SB 91728836, Foto Flash SB 22872092, Foto Shangri-La (M) SB 21423088, Grade One Photo Solution 60931998, Keai Camera Service 21450447, LTK Electronics SB 20782339, YL Camera Service 21102261, Awer Awards 77103663 (Penang-04) BH Camera & Accessories 2286881, Camzila Photo Enterprise 3232530, Elite Photo SB 6485606, Excel Photo Trading 2262973, Fotoeasycam (M) SB 2621963, Promax Digital Concept SB 2288858, Wision Photo Trading SB 2273191, Gadgetria, Guney 2273433, Camera World 2611433 (Johor Bahru-01) Foto CLS 3343626, Johan Photo 2385633 (Kuala Lumpur-02) MM Digital Imaging (M) SB 7436266 (Sabah-08) Investline SB 225303 (Kuching-02) Great Wall 423411, Copal Digital 251653

Online & CE Dealers: www.lazada.com.my, www.shashinki.com, www.superbuy.my, www.kerz.com.my, www.ipmart.com.my, mycameraplace.com, www.fancart.com

ASROCK BEEBOX

ASRock unveiled the Beebox during COMPUTEX 2015. Sporting Intel's new Braswell SOC, the Beebox comes in either a 2GB RAM or 4GB RAM variant. It supports the latest USB Type-C, and ASRock boasts that it is capable of handling triple monitors, or a single 4K display output. It is also Windows 10 compliant.

AMT PC Distributors Sdn Bhd (03) 3344 1124

Cudo Technologies (M) Sdn Bhd (03) 2148 1177

INGENS Sdn Bhd (03) 7688 9888



TP-LINK ARCHER C3200

Just by looking at the Archer C3200 wireless router you can already tell that it means business. It has one 2.4GHz band and two 5GHz bands working in tandem with its six beamforming antennas to provide you with a rock-steady Wi-Fi connection throughout your home. It's even equipped with a dual-core CPU that helps manage all incoming and outgoing connections for uncompromised network stability. Its USB 2.0 and USB 3.0 port can be fitted with an external hard drive to make your multimedia files accessible across the network.

TP-Link Distribution Malaysia Sdn Bhd

(03) 8964 1922

AdvanceNet Technology Sdn Bhd (03) 8070 3633

Lab Seven (M) Sdn Bhd (03) 8075 8811



ECS LIVA X²

Sleek, compact, and powerful, the LIVA X² brings elegance of design and functionality to the small form factor PC. Built on Intel's Braswell N3050 SoC with 802.11ac support, the X² can deliver performance beyond its diminutive size. It also features three front USB 3.0 ports, a M.2 SSD expansion slot, and multi-display support. Coupled with its VESA mount support, the X² can fit in almost every environment, whether as a media center or a kiosk.

INGENS Sdn Bhd (03) 7688 9888



VIEWSONIC NMP-302W

Make the most of your business signage with the NMP-302w network player from ViewSonic. Capable of delivering stunning and crystal-clear 1080p multimedia content on your digital display, it comes with both built-in wireless and RJ45 connectivity, as well as dual USB and microSD card slots, allowing for either wireless or direct transmission.

Kaira Technologies (M) Sdn Bhd (03) 7955 3669

SDS Distribution Sdn Bhd (03) 7782 4700

BEST-SELLING ORIGINAL INK TANK SYSTEM PRINTER IN SOUTHEAST ASIA.

LOWEST PRINTING COST.

To help small businesses go further, the **Original Epson Ink Tank System Printer** offers high volume printing at the lowest cost, without scrimping on quality. All thanks to Epson's award-winning Micro Piezo printhead technology. With over **2 million units sold** in Southeast Asia since 2010, this technology has been tried and tested year after year.

For the best printing solution for your business, think outside the box.
#INKOutsidePrinter

*As of 10 April 2015, the Epson L-Series offers users the lowest cost per page (black and colour combined) for any printer using genuine branded supplies from its own manufacturer. This is based on the MSRP listed on the manufacturers' websites in 5 major ASEAN markets. Over 2 million units of Epson L-Series sold in Southeast Asia since 2010. Standard warranty period is one year. Additional: one year warranty is applicable to selected models only and will be activated upon online warranty registration.

For just
RM20* per bottle
*RM20 (including GST)
Print up to
6,500 colored pages
4,000 pages
(Black only)

OVER
2 MIL
UNITS
SOLD

1+1*
EXTENDED
WARRANTY



Visit www.epson.com.my/INKOutsidePrinter to find out more about the **Original Epson Ink Tank System Printers**.

Join us on [f](#) EpsonMalaysia [@EpsonSEA](#) [YouTube](#) EpsonSoutheastAsia

ENGINEERED FOR BUSINESS

CORSAIR OBSIDIAN 750D AIRFLOW

The successor to the original Obsidian 750D, the new Obsidian 750D Airflow features a front grill that allows for improved airflow into the casing. It features the same award-winning design, and has enough room inside it for as many as three 140mm fans and five 120mm fans. It also has four tool-free side-mounted 2.5-inch SSD drive cages and three tool-free 5.25-inch bays for HDDs.

📞 Cudo Technologies (M) Sdn Bhd (03) 9058 3388

**GIGABYTE P37X**

Gigabyte's P-series notebooks have always been slim, and the new P37X is no different. Sporting NVIDIA's GeForce GTX 980M GPU with 8GB of GDDR5 VRAM, you can be sure that your gaming experience is unhindered. You also get a Macro Hub on the left of the keyboard for all the shortcuts your gaming self ever needs, and support for up to a quadruple storage system to store all the games that you play.

📞 INGENS Sdn Bhd (03) 7688 9888

**KINGSTON HYPERX PREDATOR DDR4 KIT (128GB)**

This basically consists of eight of 16GB HyperX Predator DDR4 RAM modules, so you get the kind of performance you'd expect from Kingston. With speeds going up to 3,000MHz, the modules in the kit also feature ultra-tight 16-16-16-36 timings and XMP profiles for easy and stable overclocking. The HyperX Predator DDR4 kit also consumes less power, and has better heat dissipation for a cooler-running system.

📞 Amble Action Sdn Bhd (03) 7968 6899

📞 Convergent Distribution (M) Sdn Bhd (03) 2144 1881

📞 Ingram Micro Malaysia Sdn Bhd (03) 7952 8188

**ZOTAC ZBOX EN970**

Unlike typical mini PCs that are often times both small in size and power, Zotac's ZBOX EN970 is one that packs a punch, thanks to the 5th generation Intel Core i5-5200U dual-core processor and NVIDIA GeForce GTX 970M GPU that sits inside of it. It supports up to 16GB of RAM, and will have plenty of storage space for your favourite games, as there will be one M.2 SATA SSD slot and two RAID configurable 2.5-inch HDD bays.

📞 Cyntrix Technologies Sdn Bhd (03) 5880 5552

CASIO G-SHOCK MRG-G1000

Not all G-Shocks are made the same. The MRG-G1000 is by far Casio's most refined tough timepiece. Each piece is crafted to perfection by a master craftsman and built with ultra-lightweight titanium that's further treated for durability, Sallaz polishing, and anti-reflective sapphire crystal glass. It's solar powered and features hybrid atomic and GPS time adjustment. Take my money now!

Marco Heritage (M) Sdn Bhd (03) 4043 3111



BLACKMAGIC MICRO CINEMA CAMERA

The world's smallest digital film camera sports an intuitive remote control interface and 12-bit RAW and ProRes recording capabilities. It is highly customizable and supports a wide range of professional lenses and almost limitless expansion options, allowing you to capture almost anything with its Full HD sensor and 13 stops of dynamic range.

www.blackmagicdesign.com



SONICGEAR
Trust Your Ears

quatro
SERIES

**Becareful...
IT'S LOUD !!**



quatro 2



QUAD BASS



USB POWERED



quatro V



REMOTE CONTROL



FM RADIO



BASS REFLEX



USB AUDIO INPUT



SD CARD



USB POWERED

WWW.MYSONICGEAR.COM

AVAILABLE IN VARIOUS STORES NOW:

AEON BIG, COURTS, GIANT, POPULAR, TESCO & MAJOR IT MALLS (*selected outlets)

FOR ENQUIRY PLEASE CALL 03-7803 6703



www.facebook.com/sonicgearmalaysia

DELL VENUE 8 7000

Dell claims that the Venue 8 7000 is the world's thinnest tablet and we have no doubts about that claim. It's just 6 mm thick. The more impressive thing is that it packs in Intel's new RealSense 3D cameras, which allows you to take pictures on your tablet to a whole new level. www.dell.com.my



SYNOLOGY DISKSTATION DS715

The DS715 is a sleek-looking NAS that hides massive power. Within it is a quad-core processor and encryption engine that when combined, results in a secure storage with speedy performance. Meant for small business workgroups, the NAS also has dual LAN ports with failover and Link Aggregation technology. Combined with an expansion unit, this two-bay NAS can handle up to seven drives for a total capacity of 56TB.

Build Technology Supply Sdn Bhd (03) 7955 3699

SONY SRS-X55

As the flagship model in Sony's new range of wireless portable speakers, the SRS-X55 does not compromise on audio quality in any way, thanks to the use of LDAC, Sony's very own Bluetooth wireless streaming technology that lets you stream Hi-Res Audio music. It's a 2.1-channel system and has two passive radiators for superb bass. There's also an integrated rechargeable battery that lasts for up to 10 hours.

Sony Customer Interaction Center
1 300 88 1233



MSI X99A GODLIKE GAMING

MSI's X99A GODLIKE GAMING motherboard earns its 'Godlike' moniker from the fact that it's the world's first RGB LED motherboard. Its programmable LED lights can be configured to 'breathe', 'flash' and 'wave' in more than 2,000 different colors, and they can be controlled via the MSI Gaming app on your PC, or the Mystic Light app on your Android device. Flashy lights aside, other features include a Killer DoubleShot-X3 PRO setup consisting of two Killer Ethernet chips and a Killer 1535 Wi-Fi module, a Turbo M.2 PCIe SSD slot, as well as SATA Express and USB 3.1 ports.

MSI Malaysia 1 300 22 1986

NIKON 1 J5

The Nikon 1 J5 is quite possibly Nikon's fastest camera yet, boasting a continuous shooting speed of approximately 20 frames per second, and an AF system that practically covers the entire frame, with 171 focus areas – of which 105 are phase-detect points – for quick and accurate focusing between shots.

📍 Nikon (Malaysia) Sdn Bhd (03) 7809 3688



SANDISK DUAL USB TYPE-C

Whether you like it or not, USB Type-C is the future. It provides numerous advantages such as greater transfer speeds and delivery of power, plus it is also smaller and reversible. To get ready for the onslaught of USB Type-C devices, there's the SanDisk Dual USB Type-C, a flash drive with both standard USB 3.0 and USB Type-C connectors.

📍 Vector Digital Sdn Bhd (03) 2143 2822



USB 3.0
Flash Drive

Blaze B50
8GB ~ 128GB



Easy thumb-push
No more worries about cap loss



03-7688 9888
www.ingens.com.my

ASROCK G10

You have gaming routers, and then you have one by ASRock. The G10 features eight built-in dipole antennas that are tuned to keep equal performance and coverage in all directions. Also featured is MU-MIMO technology, allowing multiple devices to be connected to the G10 and still game smoothly. It also comes with a HDMI Miracast dongle that doubles as a travel router, giving you more than what you pay for.

AMT PC Distributors Sdn Bhd (03) 3344 1124
Cudo Technologies (M) Sdn Bhd (03) 2148 1177
INGENS Sdn Bhd (03) 7688 9888



SYNOLOGY RT1900AC

From the maker of some of the best NAS solution in the market comes an award-winning 802.11ac dual-band router. Running the newly-introduced Synology Router Manager, the RT1900ac brings desktop-like UI to a hassle-free router OS experience. It also has access to Synology's rich selection of free, add-on apps, allowing multimedia lovers or network administrators to go way beyond what a simple router can do.

Build Technology Supply Sdn Bhd (03) 7955 3699



OAXIS GLO

Are you increasingly more health conscious lately? Meet Glo, OAXIS' very own Bluetooth smart body analyzer, which measures and track your weight, body fats, lean body mass, bone mass, body water level, and visceral fat index in a non-invasive manner. It identifies up to six individuals using customized colors, and beams measurements directly to an Android or iOS phone via Bluetooth LE 4.0.

www.oaxis.com



ARLO BY NETGEAR

Not your typical Wi-Fi security camera, Arlo by Netgear is the first 100 percent wire-free and weatherproof HD security camera. There is absolutely no wires – not even a power cable, and you can virtually place this tiny smart camera almost anywhere. Made small and powerful, it has all the features that you'd expect from a modern IP camera, including night vision, motion alerts, and cloud storage.

Kaira Technologies (M) Sdn Bhd (03) 7955 3669



THINK

ROBOTS ARE COMING

■ Robotics technology has reached a stage where fiction is turning into reality. As we now live in a world where cars can drive themselves and you can have your meals expertly prepared by a robot chef, what are the implications of chasing the elusive goal of true artificial intelligence?

Text by Zachary Chan

MORE INSIDE > PRINT

EVERYTHING

3D printing is the next big thing but as cheap consumer printers become available, questions arise about IP rights, indemnity and quality control.

PC TECH UPDATES

The PC isn't dead. In fact, from what we saw at COMPUTEX 2015, both desktop and notebook users are in for a treat with powerful new chips for every budget.

THINK



ILLUSTRATION VEN

DOMESTICATING TECHNOLOGY

Living with robots and the dilemma of realizing true A.I.

by Zachary Chan

Industry analysts predict that robotics will be the next revolution and will one day be as ubiquitous as the Internet or as the PC. The question however, isn't whether this will happen, it will, but in what form.

When I attended the inaugural CES Asia 2015 in Shanghai last May, I was fortunate enough to sit in a very interesting panel discussion about robotics that didn't so much as talk about technology and innovation, but the cultural and empathic implications that robotics and A.I. bring to the table.

The difference between a robot and a smart device, according to the panel which consisted of speakers from Intel and AiNemo, a Chinese robotics startup, is that robots are autonomous, with the ability to move or perform their intended tasks without further input from a human user.

Outside of their mass adoption in production and manufacturing, robots are developed as companions, such as the Sony Aibo and as household help, such as autonomous vacuum cleaners. CES Asia was also the stage for the public debut of the world's first robotic kitchen from Moley Robotics UK, which features two fully articulated robotic arms and an iTunes-like library of recipes. The Moley robot isn't just able to follow a recipe, but can supposedly mimic the flair and dexterity of a human chef while preparing said dishes.

In China, one area of growth is in telemedicine and patient care, where robots are used to ensure patients have a constant connection with family and healthcare services in case of emergencies where they might not be physically able to get help. If you're picturing robots such as EVE from Wall-E or Baymax from Big Hero 6, we're still far off from that reality. Many household 'robots' such as the aforementioned AiNemo are more akin to connected webcams with limited mobility.

Still, it is fair to say that we've become used to robotics in our lives and in fact welcome them as long as they remain tools. That's where it seems we draw the line. Robots are merely machines designed for a specific task. They might be the most advanced piece of hardware available, but they are still just tools. The moment we introduce intelligence into a robot is when we start to view it differently.

When the makers of the AiNemo robot started researching into the form and design of their robot, they found out that empathic values

play a big role in the acceptance of a robot in the household. A Roomba for example, is free to zip around the house. But what if the Roomba could identify its owners, provide greetings and feedback? Not only do questions of security and privacy start to crop up, but it also seems to throw people off. Do you greet your robot back? Will you still treat it as a 'dumb' machine? Japan is probably the most forward in terms of experimenting with lifelike humanoid robots, though none have yet been able to bridge the uncanny valley.

Even as research into A.I. intensifies, more questions are being posed than the industry can answer. Take for instance the Moley robotic kitchen, you could possibly program it with safety features such as not pointing the sharp end of a knife in the proximity of a human, but how can it understand consequence? For example, a faulty sensor could result in leaving the gas turned on overnight, which would be deadly. Who is to blame then?

In the same vein, Asimov's laws of robotics would only work on simple machines. You cannot program a robot not to harm a human if it doesn't know what it means to harm one or more precisely, the ability to understand cause and effect, to make judgement calls to whether some harm may actually be required to avoid a greater hurt. What if you were trapped under rubble and the only way to extract you was to amputate your arm? Even if its A.I. was advanced enough to realize that a greater harm would befall you by leaving you in the rubble, would it know that it still couldn't just rip off your arm, which would effectively cause fatal

blood loss and trauma?

All these decisions require true intelligence, something the level of A.I. today can only mimic. It may be able to learn new parameters, but can an A.I. ever apply reason, logic and emotion to its actions? The day may come when such an A.I. is realized, but even then, will it possibly know what it means to be human and empathize with us? I mean, we are fully self-aware, are we not? But do we know what it means to be a chimpanzee, for example? We cannot.

This scenario is masterfully explored in the film *Ex Machina*, where the robot Ava may have achieved consciousness, but still cannot comprehend the intricacies or fragility of human life. In light of this, should we even continue exploring the A.I. route, or should machines always be under the control of humans?

"You cannot program a robot not to harm a human if it doesn't know what it means to harm one or more precisely, the ability to understand cause and effect, to make judgement calls to whether some harm may actually be required to avoid a greater hurt."

PRINT ANYTHING

3D printing is set to solve all our problems, or condemn us all.

by Zachary Chan

For most people, 3D printing is nothing more than a cool gimmick. You get to print your own little plastic trinkets and it's all fun and games for a while, until it isn't. Unless you can actually print something useful—a replacement lightbulb or a shirt for example—then all you're really doing is creating more waste. And if you've been checking out the growing number of consumer-grade or personal 3D printers available, you'll also realize that the process is not only slow, but 3D printers today are limited to using one material at a time and the outcome can be rather crude, more akin to a carved candle than the epitome of engineering perfection.

However, there is a bigger picture to see here as the industry is quite bullish that 3D printing will be the next big thing, not just for you and me or even for commercial manufacturing, but as technology that will ultimately benefit all of mankind.

A little too grandiose a statement? Think about it for a moment.

In terms of bioscience and healthcare, 3D printing could be the solution that is able to drastically reduce waiting time for compatible organs, combat the black market and probably end pharmaceutical animal testing. In 2013, researchers in Princeton university produced a prototype of a "bionic" ear from an off-the-shelf 3D printer, merging electronics and cartilage materials. Researchers in Hangzhou DianZi university in China managed to bioprint a small working kidney that lasted four months. In 2014, researchers from Sydney and Harvard universities made a breakthrough in printing human tissue that was able to survive on its own after printing via a process called vascularization. The ultimate goal is of course to be able to print fully functional tissue and organs with wide ranging uses from more ethical medical testing to customized donor compatibility.

3D printing is also seeing rapid adoption in the classroom, where the technology is again seen as a complete solution to multiple problems in all levels of education. Even among primary students, 3D printing can help develop conceptualization and problem solving skills. In the U.S., an education initiative launched in November 2013 called the MakerBot Academy aims of putting a MakerBot Desktop 3D printer in every school in America. In Asia, Taiwan-based XYZprinting—the guys who produces the sub-US\$500 da Vinci 3D printer—announced in April 2015 that they're in a deal to provide 3D printers across all 400,000 elementary schools in China over the next two years.

Hitting closer to home, 3D printing technologies are advancing at a pace that's parallel with traditional ink-on-paper printing. We're not just talking about improvements in speed and complexity. 3D printers capable of multi-color and multi-material printing could just be two to three years away.

However, before 3D printing can really go mainstream, scanning technology has to evolve first. Industry analysts are predicting another data explosion as the tools that enable scanning or capturing of depth information become commonplace. If you think about it, 3D cameras have been available for years and if you recently upgraded your PC or notebook this year, chances are you have an Intel RealSense 3D camera embedded in your system. Among the many things that a depth-sensing technology enables—such as measuring object distance or navigation and object avoidance in drones—spatial scanning is the key to 3D modelling.

And herein lies the next intellectual property debate: rampant physical piracy and erosion of brand value. Pretty soon, anyone with a camera would be able to capture accurate scans of just about any object, create

a CAD model and then share, print or upload to the Internet. Instead of movies and music, people will be downloading 3D models. Not only can anyone make perfect duplicates at home, but easily create derivative products too.

But let's leave that problem to the lawyers and lobbyists. What's more concerning is product indemnity and liability. What of users modifying their printer, using materials that aren't meant for it or printing a product outside of its technical specifications? Even if you accurately replicate a product 100% and it malfunctions and causes harm, who takes the blame? At the moment, the short answer is "use at your own risk, user beware."

Going back to the topic of medical bioprinting; for all its good intentions, there are also concerns of cell splicing or the merging of human and non-human cells. It would also be difficult to track artificially 3D-printed cells used in research and testing. If you think these

problems are still far into the future, the scenarios above were actually raised in a 2013 Gartner report called "Predicts 2014: 3D Printing at the Inflection Point".

Then there are weapons. There have already been successful 3D printed, fully operational firearms. Imagine plastic DIY gun parts that are virtually undetectable via x-ray and can be disassembled and reassembled easily. There is currently a movement in the U.S. to pass a bill that bans such untraceable 3D printed firearms call the Undetectable Firearms Modernization Act, but as of writing, it has yet to come to pass.

These are real risks when every home can potentially turn into its own manufacturing plant with no standards, no control and no tracking of products being made. Perhaps we should just stick with our single-color, plastic candle carvings for the time being.

"In the fields of bioscience and healthcare, 3D printing could be the solution that is able to drastically reduce waiting time for compatible organs, combat the black market and probably end pharmaceutical animal testing."



MID-YEAR TECH UPDATE: MOBILE PROCESSORS AND INTEGRATED GRAPHICS GET A BOOST

Smartwatches have been dubbed as the next big thing in technology, but the truth is we have seen very little innovation on that front.

by Koh Wanzai



COMPUTEX 2015 has come and gone, and we've been wowed by booths crammed with all manner of high-tech goodies. Believe it or not, Thermaltake actually showcased a PC case modeled after Mjölnir – the hammer of Thor – called ThermalThor (yes, really).

But outlandish form factors and gadgetry aside, most of us still spend most of our time in front of a fairly conventional desktop computer, laptop, or 2-in-1 hybrid. Nothing too fancy to see here, but that's really just skimming the surface.

Under the hood, Intel and AMD have announced a new range of desktop and mobile processors at COMPUTEX 2015 that promise improvements in performance, power efficiency and a range of new features. We take a look at the major announcements from both companies to bring you the gist of what you can expect in the desktop and mobile computing space moving forward.

"Intel's COMPUTEX announcement comprised a total of 10 desktop and mobile processors, all of which will feature the Intel Iris Pro Graphics 6200 integrated graphics processor (IGP)."

Broadwell packs a graphic punch

Broadwell was notoriously slow to release – so slow in fact that we are now nearing the cusp of the release of sixth-generation Skylake processors – but we finally have a view of the entire slate of Broadwell processors.

While Broadwell has already debuted in the form of select low-power chips like Intel Core M, Intel's COMPUTEX announcement comprised a total of 10 desktop and mobile processors, all of which will feature the Intel Iris Pro Graphics 6200 integrated graphics processor (IGP).

In fact, that's the most important takeaway from Intel's COMPUTEX announcement. All five desktop SKUs – even the LGA-based Intel Core i7-5775C and Core i5-5675C – have a TDP of 65 watts, and they're clearly not intended to replace Haswell's high-end desktop part, the Core i7-4790K. Improvements on the CPU front are modest, and the new Iris Pro Graphics is the one boasting far more significant enhancements.

This makes sense when you consider that the new Broadwell chips are intended to improve performance in laptops and compact desktop form factors like mini PCs and AIOs. The new IGP promises to double the graphics performance of the Intel HD Graphics 4600 on the Core i7-4790K. According to Intel, it can run World of Warcraft at 1080p and 61 fps, an ambitious claim which if true, marks a huge step forward in integrated graphics performance for Intel.

This is legitimately something to be excited about, and it also means that Intel has finally closed the gap with AMD's APUs in terms of integrated graphics performance. Laptop and small desktop manufacturers could make smaller, slimmer devices that can handle titles like League of Legends, Dota 2 and WoW, all without the need for a discrete graphics card. As a result, not only will we get sleeker and more powerful devices, they'll probably be cheaper too.

However, Broadwell will probably interest OEMs more than the enthusiast crowd. Existing LGA 1150 motherboards may be compatible with Broadwell, but owners of Haswell chips probably already have a discrete GPU in their system, which would leave little incentive to upgrade. So unless you're in the market for a notebook or AIO system, it looks like Skylake is the upgrade to watch out for!

AMD Kaveri gets an upgrade to Godavari

Elsewhere in the desktop space, AMD delivered an incremental update to its Kaveri APU in the form of Godavari. While the AMD A10-7870K will replace the A10-7850K, both chips are actually based on the same Steamroller cores and architecture.

As of now, the A10-7870K is the sole representative of the Godavari family, but AMD will slowly roll out other Godavari APUs in the coming months. AMD is aiming for evolution rather than revolution with Godavari – it is taking advantage of process maturity and a better binning process to squeeze more performance from an existing architecture. Talk about maximizing your resources!

In addition to higher CPU base and boost frequencies, GPU frequencies were also kicked up a notch. A faster APU should also be more power-hungry, but Godavari brings improved power and performance management schemes and a better thermal interface to cope with it.

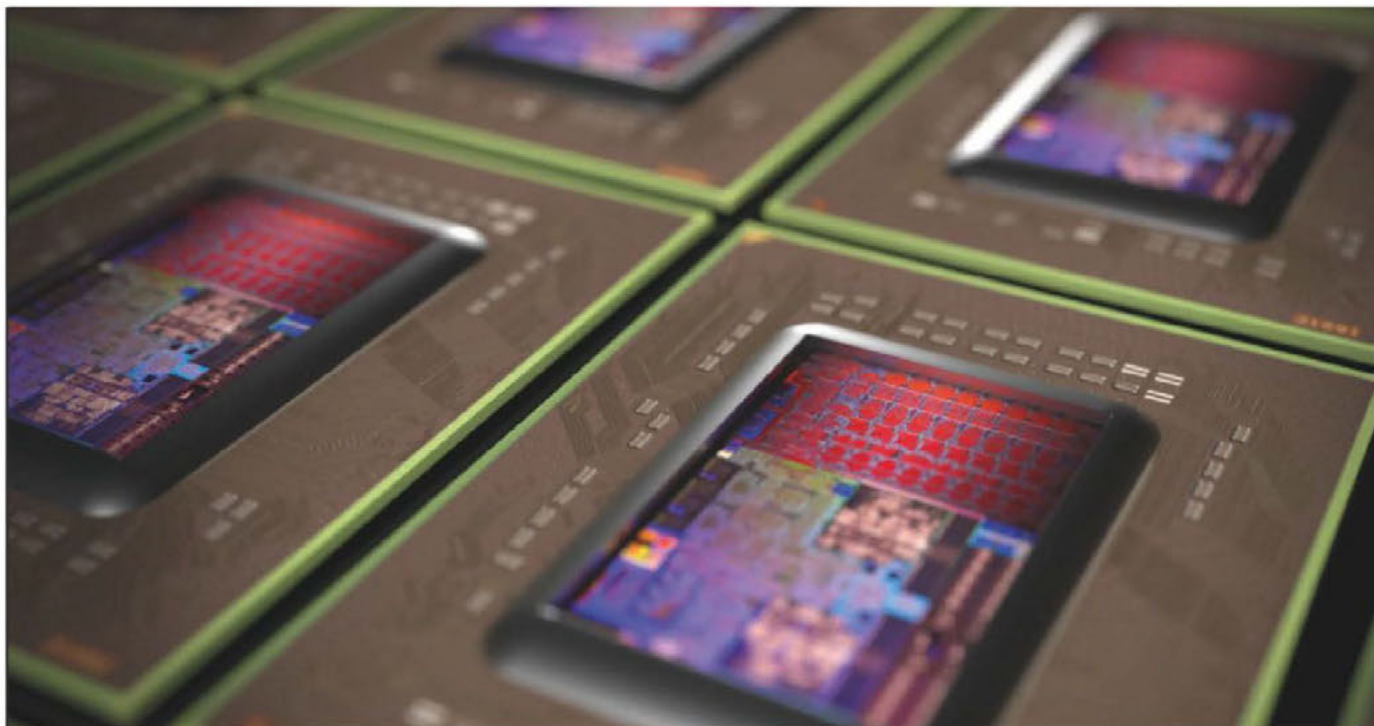
If you're looking to build an affordable desktop or HTPC for light gaming, Godavari might appeal to you. But by light gaming, we don't mean Minecraft. AMD took care to emphasize the A10-7870K's performance in some of the most popular online multiplayer games today, citing 62 fps in Counter-Strike: Global Offensive.

Intel's Iris Pro Graphics 6200 may be more powerful, but the A10-7870K definitely has a more attractive price-to-performance ratio at US\$137. Budget system builders, look this way!

"Finally, a new architecture from AMD. Carrizo features an all-new Excavator core that is highly optimized for power efficiency and streamlined for better power control."

Excavating the mainstream notebook market with Carrizo

Finally, a new architecture from AMD. Carrizo features an all-new Excavator core that is highly optimized for power efficiency and streamlined for better power control. But here's the important part: Carrizo will only be targeting the



PICTURE AMD

notebook market, at least at first. This does mean that only laptop OEMs will be able to get their hands on the chips for now.

Although the graphics performance of AMD's APUs has always been their strong suit, AMD will not be going after the high-end gaming notebook market. Instead, it wants to target the mainstream – and also much larger – notebook segment.

The best part of it all? Carrizo is now officially an SoC, with all Southbridge chipset functionality now on-die with the APU. Notebook users care about general improvements to user experience and battery life, and Carrizo delivers snappier, more efficient performance and lower power draw.

Furthermore, it does this without moving on to a smaller process node or even increasing the die size (it actually shrinks it). This is all thanks to the new Excavator core, which also allows more efficient HEVC decoding and smooth 4K video playback. Other usability improvements include Looking

Glass and Gesture Control. Looking Glass attaches useful tags to your photo and video library and can even recognize the faces of the people in them, while Gesture Control takes on Intel's RealSense 3D camera by allowing laptop webcams to interpret gestures.

If this sounds good, that's because it is. Major vendors like HP are already on board, and mainstream notebooks could gain beefier multimedia capabilities at extremely attractive prices.

What's next?

But of course, the tech world never stands still. When all the whirlwind announcements of COMPUTEX are done with, we're already looking ahead to the next big thing over the horizon. In the computing and gaming space, we've got our sights set on Intel's Skylake processors and DirectX 12.

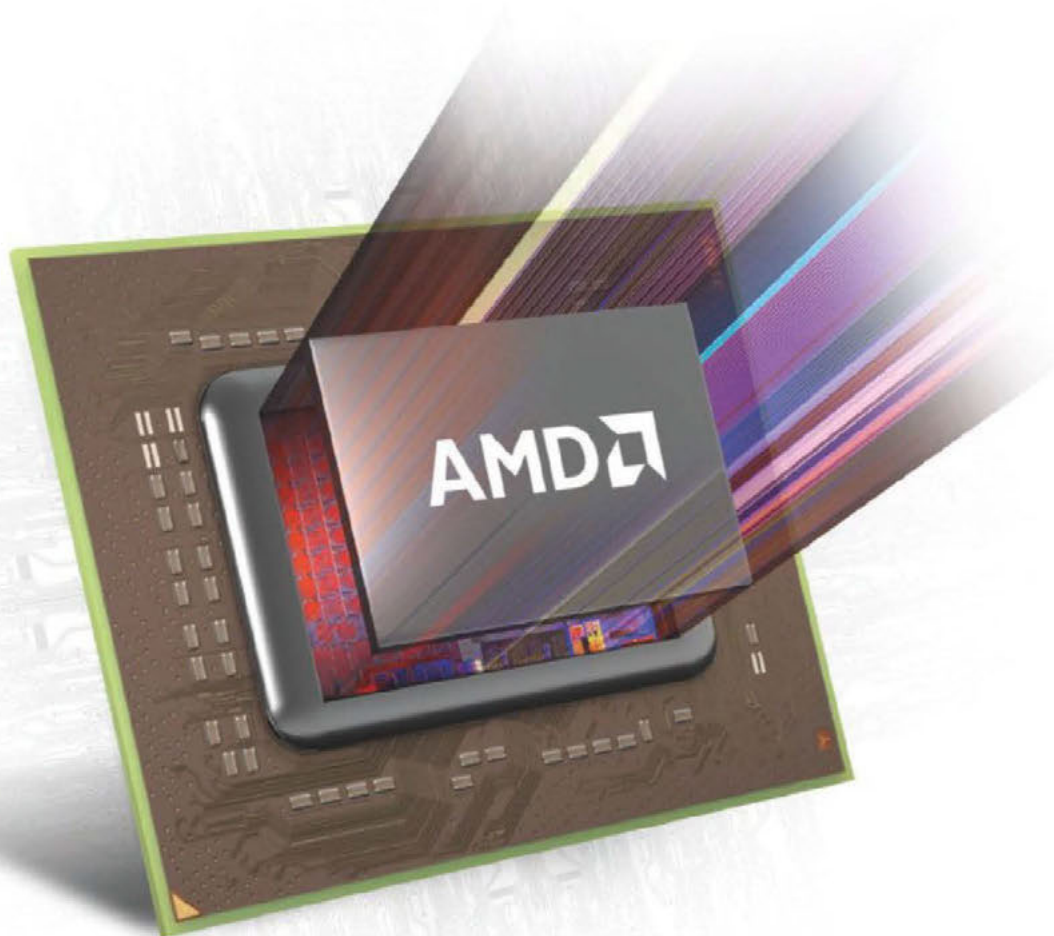
Skylake will be Intel's biggest announcement of the year. It will feature a brand new microarchitecture and a

comprehensive refresh of the Core lineup, complete with the high-end, performance desktop chips that Broadwell lacked.

On the software front, both Intel and AMD are gearing up for support of the next-generation DirectX 12 API, which will enable greater access to graphics hardware for developers, better utilization of multi-core CPUs and a range of new features for more realistic graphics.

However, one of the more interesting features by far is Explicit Asynchronous Multi-GPU, which dispenses with the old rules of what's possible with multi-GPU setups. Long story short: you can now combine AMD and NVIDIA cards and even capitalize on your processor's integrated graphics, which certainly bodes well for the current slate of beefed-up graphics on Intel's processors and AMD's APUs.

Excited? We certainly are.



THE STATE OF SELF-DRIVING CARS

We went to the first-ever CES Asia in Shanghai to find out how far automotive technology has come.

by John Law



For years, man has always sought to turn the beasts of burden like the ox and horse into a form of transportation that could take them over long distances. As time went by, man developed and improved his mode of transportation until, in 1886, a man by the name of François Isaac de Rivaz designed the world's first car with an internal combustion engine. This wasn't just another mode of transportation, it was the future.

Today, this four-wheel wonder is in no short demand. However, in this age of smart devices and near-space age technology, we sought the answer to a relevant question: How far has the concept of a smart car developed? Is the self-driving car close to becoming a reality? Can it be integrated into this age of the Internet of Things (IoT)? To find out, we went to Shanghai, China, for the first-ever Consumer Electronics Show (CES) Asia.

Smarter Cars and Automotive Sustainability

At this point, you're probably wondering why it is that the CES committee decided to host one of the biggest electronics show in Shanghai, China. The answer is simple: Shanghai is, for those of you who don't know it, the city where many of the country's wealthy elite, both old and new, reside. With a population of close to 26 million people in the city alone, an increase of just one percent in sales of technology products can help any company net in billions of dollars in revenue.

Combine that with one of the most tech-savvy population and city inside of China, and it's easy to see why the people behind CES decided on hosting CES Asia 2015 in Shanghai.

One of the companies that we had followed closely was Audi, primarily because they were the only car company that we noticed with automotive technology inside that was – to a degree – staggering to the mind. Someone told us during Audi's opening keynote that the company isn't an automotive company. They said that Audi has always been, first and foremost, a technology company that just happens to make cars. Say what you may about the statement, but there is some truth in it, and it actually showed in their opening keynote.

One of the companies that we had followed closely was Audi, primarily because they were the only car company that we noticed with automotive technology inside that was – to a degree – staggering to the mind. Someone told us during Audi's opening keynote that the company isn't an automotive company. They said that Audi has always been, first and foremost, a technology company that just happens to make cars. Say what you may about the statement, but there is some truth in it, and it actually showed in their opening keynote.

Rupert Stadler, Chairman of the Board, AUDI AG, giving an opening speech during the keynote.





Audi is working with Chinese companies, such as Huawei, to turn all their future cars into mobile Wi-Fi hotspots.



Audi has given its supercar flagship, the R8, the hybrid treatment with its e-tron technology.



The Audi TTS.

Audi also stated that one of their key goals was to transform the traditional concept of a car, which serves as a vehicle that gets you from point A to point B. Instead, they seek to repurpose currently existing automobile technology, and further enhancing them by incorporating with the very latest in smart and wireless technology. To that end (at least, for the Chinese market), the company announced that it is partnering with networking company Huawei in order to develop a specialized hardware that will effectively help turn any future Audi cars into Wi-Fi hotspots.

On that note, the company also unveiled several new cars in its lineup, starting with the Audi A7 Concept Driving, the Audi Q7 e-tron Quattro, the Audi e-tron R8, and the new Audi TTS.

But none of these cars would have ever seen the light of day, were it not for one particular car model. It's the one from which all the cars that stood in the hall during the keynote had derived their design and appeal from, in one way or another: the Audi RSQ, a prototype that made its debut almost a decade ago in the sci-fi movie, *I, Robot*.



Meet the Audi e-tron Q7, the company's first hybrid.



The Brains Behind the Brawn

Between all the models we saw there, the car that caught our eye was the self-driving Audi A7 Concept Driving. The car was a familiar face, mainly because we last saw it in 2014 during NVIDIA's annual GPU Tech Conference (previously covered in HWM May 2014). Back then, we saw the car live up to its namesake by driving itself up on to the stage, and how it managed to pull off this feat was through a very compact, but powerful computer installed inside its trunk.

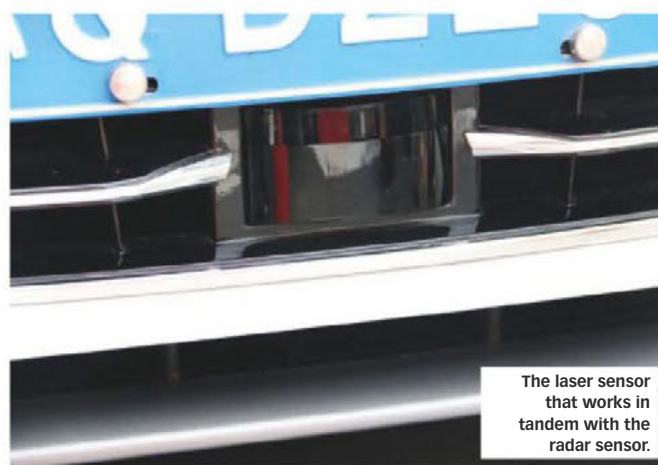
To the automotive world, this computer is known as the zFAS, and it's the brain (not the heart and soul, that description belongs to its engine) behind every little futuristic action of this car's self-driving capability. To the tech enthusiasts that have been following HWM, you'll know that the driving force behind the zFAS is NVIDIA's mobile supercomputer, known as the Tegra K1. A smart choice on Audi's part, considering that GPU technology – be it from NVIDIA's Tegra or AMD's Radeon – is still inherently more powerful than a conventional CPU.

As a reminder, the zFAS isn't just there to power up the Audi A7 Concept Driving's cockpit. It's also the core behind Audi's vision of a smart, self-driving car, and along with it, the technology that helps guide it through the roads of Shanghai.

One of the many things that Audi designed was a special headlight known simply as the Matrix LED. What is Matrix LED, and how does it work, you ask? For us to explain, we ask that you lend us your imagination as we describe it right here.

Imagine a scenario: You're driving down a lane, and it's the middle of the night. It's a dual-carriage way, and there are no lights along this road. Naturally, you turn on your high beam so you can safely see where you're going. Unfortunately, while it may help you see where you're going, the high beam would effectively blind drivers from the opposite side of the road, and thus probably causing them to have a serious accident.

As its name would suggest, the Matrix LED isn't a single light bulb, but a series of LEDs that are lined inside the headlights of the car. When the same scenario is applied to these Matrix LED headlights, these LEDs will automatically turn themselves off whenever they detect another car coming in from the opposite carriage way. Understand this: the Matrix LED doesn't turn off all of its lights, but rather, it actively detects and shuts off the ones that are in direct contact with an object directly in front of it.



Audi Senses, Tingling

Intelligent LEDs are great, but the more impressive features of its self-driving ability lies in the dual sensors located at the front of the car. The self-driving sensors are a combination of the two most commonly used sensors: radar and laser. The reason that Audi uses two sensors is because each sensor type has their own limitations in what they can and cannot detect.

Specifically, radar sensor technology is commonly used to detect objects that are solid mass that are either stationary or mobile, but is unable to map out anything in a liquid state. Laser sensor technology works the opposite way: it's able to detect and map out liquid mass within a projected area, but it is hopelessly inaccurate in detecting solid mass.

Combine these two sensors with Audi's zFAS on-board computer, and the end result is a dual sensor system that can accurately detect and pinpoint any object (in this case, moving vehicles) in front of it by approximately 40 meters, allowing the car to react accordingly within 1/25th of a second. To explain it in another way; unless someone were to actually jump out directly in front of the Audi A7 Concept Driving at the very last second, the car would be able to bring itself to a dead halt before it could come into contact with the subject in front of it.

The experience of seeing these cars first hands at CES Asia 2015 were nothing short of extraordinary, but sadly, there's still a long way to go before any of these cars are officially ready for the international market, let alone for Malaysia. But one thing was certain during the trip: what we saw during the expo wasn't a simple car show from Audi. It was a glimpse of the future.



FUJIFILM's
X-series has seen
tremendous
growth since the
introduction of
the X-Pro1.



Evolution to revolution

KEITARO SO
REGIONAL MARKETING MANAGER, FUJIFILM ASIA PACIFIC PTE LTD

by Michael Low

It's not an exaggeration to say that FUJIFILM experienced a renaissance with the highly-regarded X-series interchangeable-lens cameras. What are your thoughts on this development?

Over the past two years, mirrorless has gained a significant share in the interchangeable lens camera market, with DSLR seemingly slowing down in terms of market growth. FUJIFILM's X-series has seen tremendous growth since the introduction of the X-Pro1. Our strength lies in the X-mount lens, which brings together the image quality of the XF lenses with the compact portability of the XC lenses. Just recently, our award-winning X-T1 received 'The Best Camera of 2014' accolade from Nihon Camera, one of Japan's top three photography magazines.

The X-T1 was critically-praised for its classic styling, manual controls and weather-sealed construction. What is FUJIFILM doing to build on the momentum set forth by the X-T1?

Given how well-received the X-T1 was by enthusiasts and professional photographers, it was only natural that we continue to support our X-series cameras with firmware updates. The recent v4.00 update for the X-T1 improved its autofocus capabilities with Eye Detection AF, Auto Macro AF, as well as the new Zone and Wide/Tracking modes, which makes use of 77 AF points to capture moving subjects with ease.

That same technology can be found in the newly-launched FUJIFILM X-T10, which is a smaller, lighter, and more affordable alternative to the X-T1. The X-T10, which took its design inspiration from the FUJICA AX5, delivers the

responsiveness and image quality you'd expect from an X-series camera, along with a 2.36M-dot electronic Real Time Viewfinder that boasts a magnification of 0.62x and display lag-time of 0.005 second.

At the same time, we have also begun rolling out a series of new X-mount lenses, starting with the XF16mmF1.4 R WR, XF90mmF2 R LM WR, followed by the XF35mmF2 R WR and the 1.4x Teleconverter for its zoom lenses later this year.

As the latest addition to the X-series lineup, what can creative photographers expect from the new X-T10 apart from its retro aesthetics and more affordable price point?

The new X-T10 is introduced to bring the barrier of entry down to US\$799. Aside from serving as a secondary camera for advanced photographers, the compact and lightweight camera also makes shooting effortless for beginners with the dedicated Auto Mode Switch lever to activate Advanced SR Auto mode.

For added precision, the new Zone mode delivers fast focusing on the center 3x3 and 5x3 zones, thanks to phase-detection AF, while the Single Point mode – with its detection range of 0.5EV – allows for high-speed focusing even in low-light situations. The X-T10 is also quick to start up in just 0.5 second, and is capable of continuous shooting at up to 8.0 fps.

Given the solid lineup of X-series cameras, how is FUJIFILM positioning the X-T10 in the mirrorless market?

While we are targeting professional photographers with the X-T1, we are positioning the X-T10 to capture more wider target customers, such as

photography enthusiasts and step-up users. Three kits will be available, one with XC16-50mmF3.5-5.6 OIS, another with XF18-55mmF2.8-4 R LM OIS, and a third with two zoom lenses (XC16-50mm and XC50-230mm).

Some of your competitors are boasting 50.6MP and ISO 409,600, but the X-T1 and X-T10 max out at 16.3MP and ISO 51,200. What would you say are the practical limits?

At FUJIFILM, we believe in three key elements: lens, processor, and sensor. This combination will dictate the resolution, ISO performance, and dynamic range. Just how many lenses are able to resolve 50MP? As far as we know, only five lenses to date can truly resolve such a high megapixel sensor. There's very little reason to go for such a camera unless you're willing to invest in these lenses.

Many have asked why FUJIFILM has yet to introduce a full frame X-series camera. What we'll say is there is no technological barrier to achieve this, but we see APS-C as a practical choice. We currently offer a lineup of 18 X-mount lenses. The move to full frame would mean developing a whole new range of lenses from scratch.

The X-T10, which features 16.3MP APS-C X-Trans CMOS II sensor, eliminates the need for an optical low-pass filter and instead integrates FUJIFILM's unique, highly randomized color filter array, which works with the EXR Processor II engine to deliver outstanding resolution, reduced moiré, and low noise – even in high-sensitivity images. With that said, the current X-mount lenses are designed to cope with much higher megapixels, so please look forward to our future development.



For the best prices, our customers will receive the best quality, the best service, and the best performance.



Future beyond networking

JACK HE
COUNTRY MANAGER, TP-LINK MALAYSIA
AND SINGAPORE

by Azizul Rahman Ismail

TP-LINK is a company known for its quality and affordable network appliances, especially in the consumer market. Although relatively new, the company has managed to maintain its lead in the global WLAN market since 2012. Jack He, Country Manager of TP-LINK Malaysia and Singapore tells us more about the past, present and future of the company.

TP-LINK experienced tremendous growth since it entered the international market in 2005, leading with 49.25 percent of the worldwide WLAN market share in Q2 2014. How did it all began?

TP-LINK has three core principles that it always upholds: helping partners generate significant revenue, providing marketing support, and offering after-sales service support. As a result, our partners and customers support us in return.

After the company achieved its goals in China, we proceeded to expand into the Hong Kong market in 2005. Our next goal was South Asia before, naturally, expanding to the rest of the world.

Where does TP-LINK stand in the Malaysian market?

Our biggest market share in Malaysia is in consumer products. Our TP-LINK products are available nationwide. Looking ahead, we are now moving towards providing hardware to the telecommunications industry, and other projects as well. Now, TP-LINK is

growing stronger and strongest in SMB and enterprise markets.

What are some of TP-LINK's advantages in the competitive networking products market?

Our biggest advantage is that our products offer the best value for money. For the best prices, our customers will receive the best quality, the best service, and the best performance.

Recently, we are seeing many plug-in range extenders and signal boosters from TP-LINK that are aimed at consumers. Tell us more about why TP-LINK is going in that direction.

We have a variety of product types in the market, including modems, routers, and access points, and the repeaters is only one category in our portfolio of products. Nevertheless, we found that there is a demand from our customers for products that help them enhance their Wi-Fi network. These repeaters are an economical way for consumers and even enterprises to expand their network without losing performance.

Moving ahead, what other product and market segments are TP-LINK looking to venture into next?

We are now looking into the accessories market. Currently, we have products such as power banks, USB hubs, and IP cameras. In the next few months, you will see new products such as Bluetooth speakers, and USB converters from TP-LINK.

How about your current market, how do you plan to hold the lead in the WLAN market share in the years to come?

We have begun to better our products by bringing in more product designers. Even now, in the newest line of products from TP-LINK, you can see improvements in the interface and usability. Soon, we will be not only be on par, but, perhaps even go beyond the offerings of the more premium brands, and all at a much more affordable price.

PHOTOGRAPHY MYTH STUDIO

WIRE-FREE HOME SECURITY

The future of home security is unbound; free of tethers, anchors, and limitations.

by Azizul Rahman Ismail

Despite numerous technological innovations, home security has always been bound by wires. Even with the prevalence and adoption of Wi-Fi technology – which is often referred to as wireless, home security has never truly been wire-free.

Now imagine being able to put your home security camera wherever you want without needing to worry about the nearest power point, if it should get wet, or how difficult it is to install. That is the future of home security and with the launch of Arlo by Netgear, the future may already be here.

The Arlo is the only smart home security camera that is totally wire-free and waterproof

with a IP65 rating. The HD camera also functions well in environments with temperatures ranging from -10° Celsius to 50° Celsius, which makes it the ideal home security camera, both indoor and outdoor.

Despite only being palm-sized, the Arlo is capable of 720p resolution video recording, with motion-sensing and night-vision capabilities.

Because of its discreet and wireless design, the Arlo has a distinct advantage when it comes to camera placement and coverage. It could be placed at eye level, hidden between shelves situated opposite an entrance, for example, instead of high up where a typical home

security camera could be defeated by simply wearing a cap.

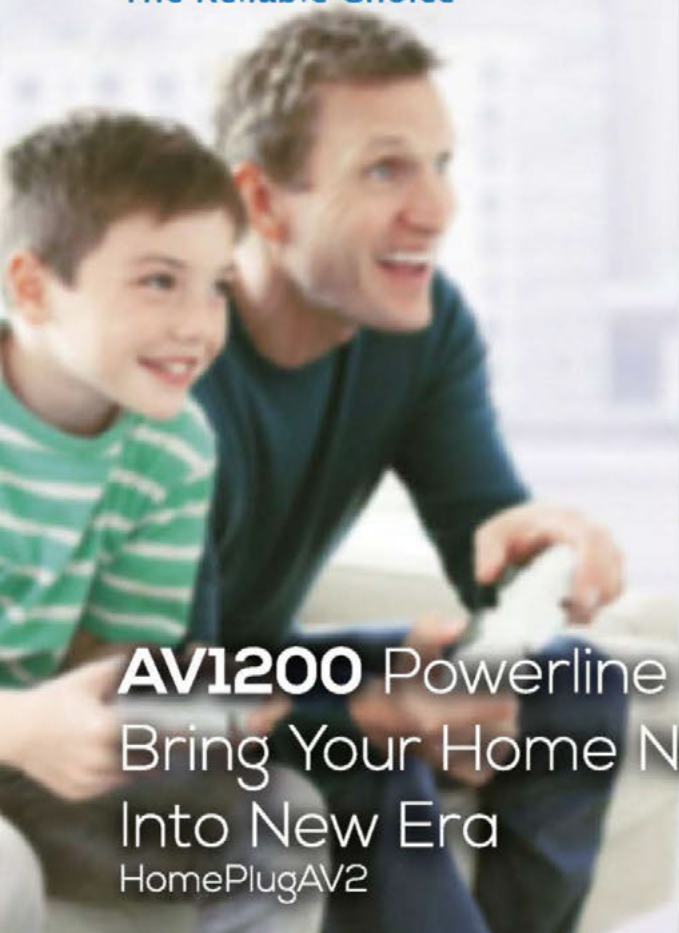
But cameras alone are not enough, as a home security camera system must be backed with a solid, comprehensive, and easy-to-use service. This is true with Arlo as well. It uses a cloud system that is accessible through PCs and mobile devices, with an interface that is simple and concise.

Furthermore, with the complimentary basic plan, Arlo by Netgear users could connect one base station with up to five cameras, and record up to 1GB of video in the cloud.



TP-LINK®

The Reliable Choice



AV1200 Powerline Kit Bring Your Home Network Into New Era HomePlug AV2



2 x 2
MIMO



Extra Power
Socket



Gigabit
Ports



Plug & Play



HomePlug AV2
1200Mbps

TP-LINK DISTRIBUTION MALAYSIA SDN BHD www.tp-link.com.my | TP-LINK Service Center Malaysia 24 Hours Hotline 1300 8887 5465 Local Service +60 3-2141 4358 e support.my@tp-link.com

Authorised Sellers:

**THUNDER
MATCH**
TECHNOLOGY

AONEPLUS
since 1998
www.aoneplus.com

Authorised Online Stores:

LAZADA



Selamat Hari Raya

PROMOTION

GET A FREE

The bonus promotion is for Purchase of a:

AC1750

Wireless Dual Band
Gigabit ADSL2+
Modem Router
Archer D7

or

AC1200

Wireless Dual Band
Gigabit ADSL2+
Modem Router
Archer D5

or

AC750

Wireless Dual Band
Gigabit ADSL2+
Modem Router
Archer D2



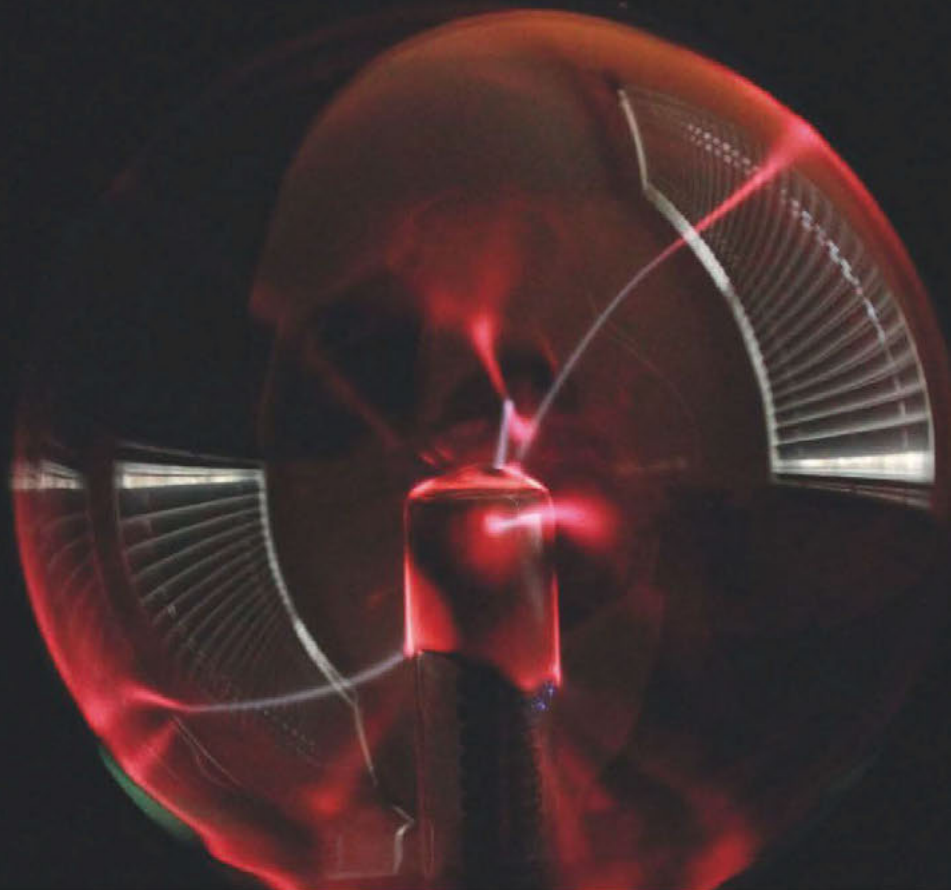
AC 600

Wireless Dual Band
USB Adapter

Archer T2U

Promotion is valid for purchases between 1st July 2015 till 31st August 2015 *

*Terms & Conditions apply | more info @ www.tp-link.com.my



LONG-RANGE IRIS SCANNING HAS ARRIVED

by Koh Wanzi

■ Biometric scanning is usually overt. You walk up to a scanner and your fingerprint or iris is committed to a database or authenticated to grant you access to a certain locale or device. But if researchers at Carnegie Mellon University's CyLab Biometrics Center have their way, that's all about to change.

They have developed an iris recognition system that can identify someone from as far as 12m away. Like fingerprint and facial recognition systems, CyLab's technology uses mathematical pattern-recognition techniques. High-resolution cameras are used to capture the images of the iris from a distance using light in the near-infrared wavelength band.

While it's almost impossible to scan someone's iris now without their cooperation, this technology would allow people to have their irises scanned without their knowledge. One obvious application for this technology would be in law enforcement, where a suspect could be identified at long range and under various lighting conditions. It is even capable of identifying someone as they glance into the rear- or side-view mirror of their car,

which would help police officers recognize dangerous suspects before they even exit their vehicle.

The technology's main selling point is that it's less intrusive, which could make its use in civilian settings much more amenable and quicker. Gone are the days where you'll need to step right up to a machine and lean in close, because CyLab's scanner can capture someone's iris and face as they walk by.

Despite the obvious privacy implications, Carnegie Mellon researchers believe the scanner could potentially replace government IDs at airports and elsewhere. In fact, one Carnegie Mellon engineering professor, Marios Savvides, has a far loftier goal in mind for the technology. He thinks it could help stop human and sex trafficking if it was put in place at national borders.

The team has already secured a patent for the invention and is working to make it easier and cheaper. Seraphim Global, a U.S.-based non-profit which works to stop trafficking, is also working with Savvides to explore the technology's potential.

TOP PICKS FROM COMPUTEX 2015

ASIA'S BIGGEST ICT TRADE SHOW – COMPUTEX TAIPEI – RETURNED FOR ITS 35TH YEAR IN JUNE LAST MONTH WITH A STRONG FOCUS ON THE INTERNET OF THINGS (IOT), MOBILE APPS, AS WELL AS CLOUD TECHNOLOGY AND SERVICES. HERE ARE THE HIGHLIGHTS FROM THE FIVE-DAY TECH AFFAIR.

Text by *Michael Low, Ian Chee & Bryan Chan*





(Center) Dr. Ying-Jeou Ma, President of the Republic of China (Taiwan); (5th from left) Francis Kuo-Hsin Liang, Chairman of Taiwan External Trade Development Council (TAITRA); (5th from right) T.H. Tung, Chairman of Taipei Computer Association (TCA); (4th from left) Charles H. Rivkin, Assistant Secretary, Bureau of Economic and Business Affairs, U.S. Department of State; (3rd from left) Shih-Chao Cho, Deputy Minister, Ministry of Economic Affairs; (far right) Ralph Wiegmann, Managing Director of IF International Forum Design; and other VIPs officiating the opening ceremony of COMPUTEX 2015.

M

ore than 130,000 visitors from around the world flocked to Taipei, Taiwan to attend the 2015 edition of COMPUTEX Taipei, which was co-organized by the Taipei Computer Association (TCA) and the Taiwan

External Trade Development Council (TAITRA). As the world's second largest ICT trade show, 76 percent of international visitors comprised Asian buyers, while North American and European buyers made up 10.6 and 7 percent, respectively.

"There are roughly 1,000 Taiwanese ICT businesses that only attend COMPUTEX and no other trade show; this is because the majority of these businesses are small/medium-enterprises, and they value COMPUTEX as an important export platform," commented Li Chang, Deputy Secretary General of the Taipei Computer Association.

From June 2 to 6, COMPUTEX 2015 served as a meeting hub for throngs of international buyers – including Best Buy, Staples Canada, and Toshiba Europe – who were linked with exhibitors over 4,000 1-on-1 procurement meetings. More than 100 forums and seminars were held during the five-day period, with the highlights being the Summit Forum, Wearable Technology Forum, Smart City Forum, and the Cloud Security Forum. The four exhibition areas – spread across the TWTC Nangang Exhibition Hall, TWTC Exhibition Hall 1, TWTC Exhibition Hall 3, and Taipei International Convention Center (TICC) – housed a total of 1,702 exhibitors for a grand total of 5,072 booths.



The TWTC Nangang Exhibition Hall is one of four main venues of COMPUTEX Taipei 2015.

Now in its 8th iteration, the COMPUTEX d&i awards for 2015 saw 271 product entries, all of which were carefully evaluated by a panel of judges, comprising international experts from various fields. A total of 72 products were selected as recipients of the COMPUTEX d&i awards 2015. Of those, five were given the honor of the Gold awards. They are Dell's Alienware Area 51 and XPS 13, Top Victory's Digital Signage X and X Series Curved TV, and smanos' K1 SmartHome Kit. All the award-winning products will be touring international tradeshows like IFA 2015, 2016 International CES, MWC 2016, and CeBIT 2016.



Ralph Wiegmann (middle) with brand representatives who were on stage for the COMPUTEX d&i awards ceremony.



The multi-award winning Acer Revo One mini PC.

Meanwhile, the Best Choice Award received 450 product entries this year, which trickled down to 41 winning products across 18 categories. From there, nine were named the Best Choice Golden award winners, with the stylish new Acer Revo One also honored with the Best Choice of the Year award. Other recipients include MSI's X99A Gaming 9 ACK motherboard, NVIDIA's Drive PX/CX platform, Synology's RT1900ac router, and more.



COMPUTEX's Best Choice award winners, such as the NVIDIA Drive PX/CX and Synology RT1900ac, were on display at the TWTC Nangang Exhibition Hall this year.



Serafim's ODIN Aurora is the world's first laser projection mouse, which raised US\$108,195 (~RM404,866) on Kickstarter in May.



New to COMPUTEX this year is 'New X Possibilities', an experience zone where visitors can learn fascinating facts behind NFC technology, as well as interact with secure payment and smart lifestyle demonstrations that were made available.

KINGSTON

A PREDATOR'S SAVAGE FURY

I

t's business as usual for Kingston and its HyperX gaming division at COMPUTEX 2015. The company's

showcase includes a lineup of products it is known for: memory modules, SSDs and USB flash drives.

New products entering the market soon are in the latter category; the company has the DataTraveler microDuo 3C to show the world. First thing to note is the fact that this lovely little thing comes with the standard USB 3.0 Type-A connector on one end and a USB Type-C on the other. Among other things, this On-the-Go USB flash drive will provide its users with USB 3.0 speeds today, and can only be faster when USB Type-C replaces Type-A – as well as every other port it can replace – and becomes mainstream. Or if you're already using

the latest-generation MacBook, then you can transfer files between it and a PC without any issue.

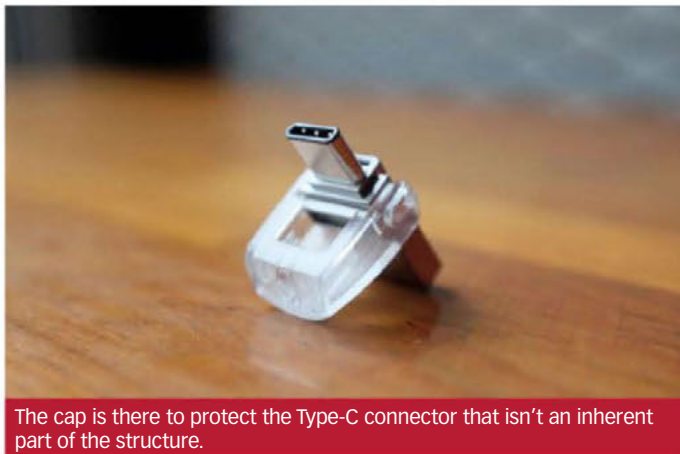
But if future-proofing isn't your main concern, nor do you use the new MacBook, then Kingston has the next-generation DataTraveler Micro 3.1 as well. It is slightly smaller than the microDuo 3C, which can almost fit on top of an SD card, and the difference in size is almost entirely due to the Type-C connector. Both the microDuo 3C and the Micro 3.1 come in capacities from 16GB to 64GB. There's no word on when exactly they will be available in Malaysia, or how much they will cost as of yet.

As for the rest of the products on showcase, most fall under the HyperX gaming division. We've seen the HyperX DDR3 and DDR4 memory modules, SSDs and even USB 3.0 flash drives. These USB flash drives feature better write speeds, as well as being sized quite ordinarily – nowhere as

small as the DataTraveler Micro 3.1 or microDuo 3C. While we're with HyperX, it would also probably be of interest to know what the Fury, Savage and Predator designations mean. These names indicate the range in which they fall in, with Fury representing entry level, while Predator meaning top of the line, leaving Savage in the middle. Then, there are the HyperX Cloud II gaming headsets. These headsets are capable of hardware-based 7.1 virtual surround sound, and is USB-powered for PC and Mac systems, and 3.5mm stereo-compatible for PS4 and Xbox One consoles. These aren't exactly new, but Kingston is proud to flaunt the limited-edition Pink-colored ones around, by having Taiwanese YouTube talent Luo Shi Ru – perhaps better known with her online handle S. White – performing her drum covers of a multitude of songs from a diverse pool of genres close by, while sporting a pair of the pink headset.



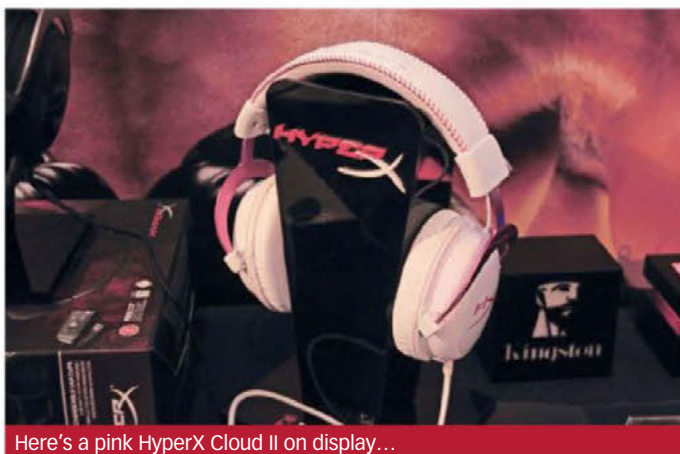
The company showcased its products away from the bustling crowd of the TWTC Nangang Exhibition Hall.



The cap is there to protect the Type-C connector that isn't an inherent part of the structure.



There were some SD and microSD cards as well.



Here's a pink HyperX Cloud II on display...



... and another with Luo Shi Ru a.k.a. S. White.

THE HYPERX ENGINE CUSTOM CASE

Also close by was a custom case by Wei Zheng, also known as Ai Mask Wei. Inspired by the Harley Davidson-esque chopper bikes' engine block, the case is massive, probably with the weight to match its size too. But it definitely has the muscle to match. Its innards include an Intel Core i7-5960X processor, an ASUS ROG Matrix R9 290X graphics card and HyperX Predator DDR4 2,400MHz 16GB (4x 4GB) RAM, HyperX Predator 480GB PCIe SSD, all resting on an ASUS Rampage V Extreme motherboard.

According to the creator of the case himself, he has bought a Harley Davidson



If this custom case looks massive, that's because it is.

last year and went on frequent rides with his friends since. Some of them suggested making a case based on the bike, and that's how this case, among many others like it, was born.

Despite being on display, Mask Wei said that it isn't in its final iteration. The case

will go through further improvements, such as using lighter and sturdier materials to endure the bumps it may go through when being transported long distance.

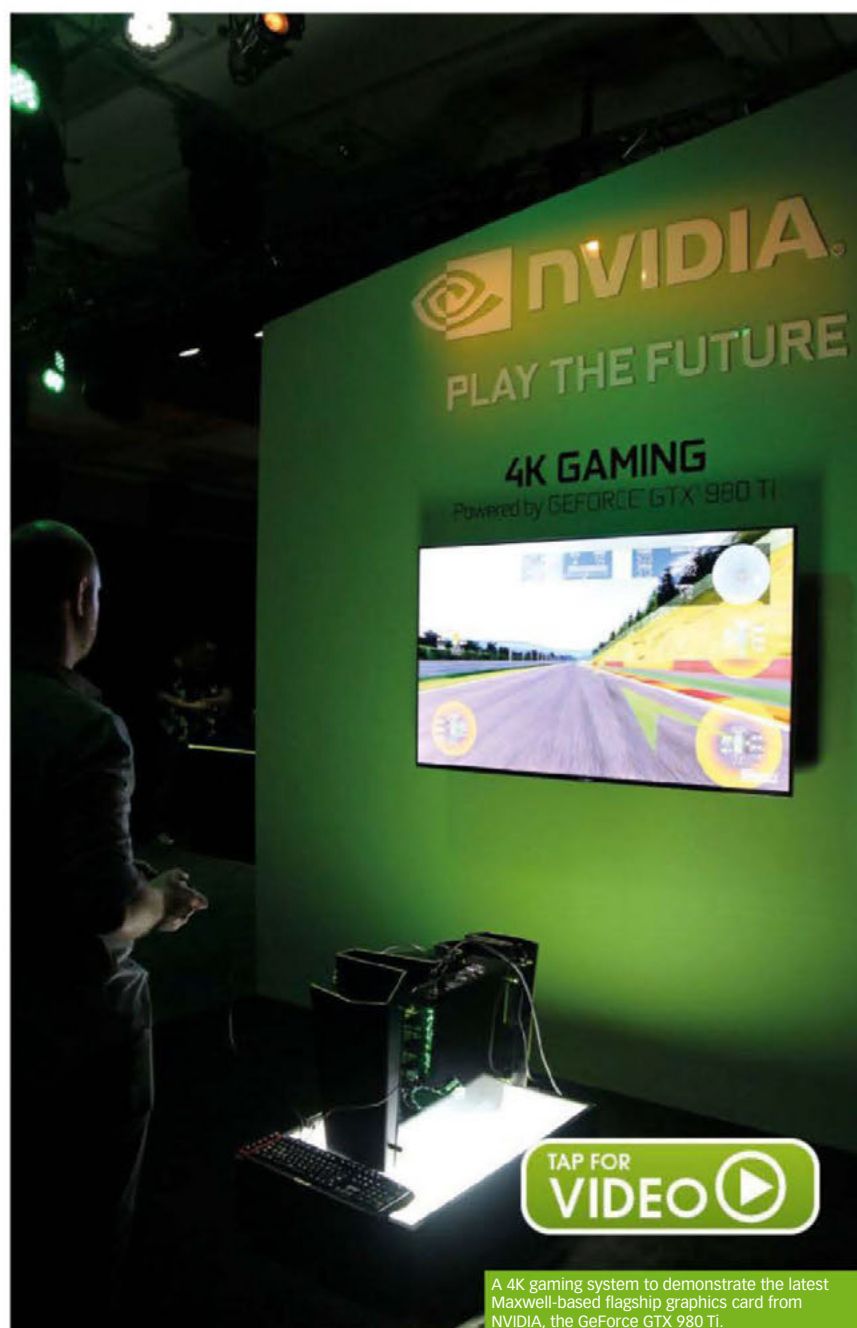


The man behind the machine.

When asked about what he thinks about case modding, Mask Wei mentioned that there are two types of modders. The first are the beginners, those who change the appearance of a

casing to suit their tastes; these are simply modders. Then there are creators who make their own from scratch like he does, transcending modding. For those who really want a case mod with their own specific visual characteristics, Mask Wei said they will have to make their own, and that means getting well-versed with the related knowledge to engineer the case.

NVIDIA 4K, G-SYNC, VR



A 4K gaming system to demonstrate the latest Maxwell-based flagship graphics card from NVIDIA, the GeForce GTX 980 Ti.

A

s seeing is believing, NVIDIA demonstrated the capabilities of the newly-launched GeForce GTX 980 Ti, and a slew of G-SYNC gaming notebooks at the GeForce VR Experience zone in Grand Hyatt Taipei. Themed 'Play the Future', the event hall encompassed many demo stations and VR booths, including a living room setup to best demonstrate the recently-released SHIELD Android TV.



The SHIELD Android TV comes complete with the SHIELD Controller for navigation, gaming, and voice search. The vertical stand and dedicated remote are sold separately.

Prior to Day 1 of COMPUTEX 2015, NVIDIA CEO Jen-Hsun Huang hosted a roundtable session to provide a walkthrough of the Android-powered 4K set-top box, as well as the Drive PX platform, among others. Interestingly, both are based on the powerful Tegra X1 SoC, powering games and 4K video content on the former, while combined with a second Tegra X1 on the latter to realize the autonomous car.



Powered by dual Tegra X1 SoCs, the Drive PX platform is further equipped with 10GB DRAM, over 2.3 TeraFLOPS of processing power and 1.3 gigapixels/second throughput, capable of handling 12 two-megapixel cameras at up to 60 fps each for auto-piloted driving and parking.



Jen-Hsun Huang, CEO of NVIDIA, demonstrated the SHIELD Android TV on the 4K television behind him.

In addition to 4K video playback, the SHIELD Android TV – through the SHIELD Hub – lets you stream PC games like Batman: Arkham Origins, DiRT 3, Saints Row 3, Trine 2, and Ultra Street Fighter IV via GRID, NVIDIA's cloud-based streaming service. It also runs Android titles natively, such as Doom 3: BFG Edition, Limbo, The Talos Principle, and Valiant Hearts: The Great War. For local multiplayer, up to four controllers can be paired with the set-top box on supported titles.

Given the VR focus of the event, the excited gaming public queued for the opportunity to put on Oculus' Crescent Bay headset and experience 'Showdown', an Unreal Engine 4 demo that moves the viewer through a slow-motion action scene that involves fly-by bullets and debris, a flipping car, and a towering mech.

A separate closed room demo was given to selected press and analysts. The full-body VR experience, courtesy of CCP Games' 'Hydra', utilizes a combination of Oculus' DK2 headset and Microsoft's Kinect 2.0 for two players to face off in a Tron-

inspired duel. While standing, the player will be able to launch discs with the right arm, and shield themselves from flying discs with the left arm. While the gameplay is fairly basic, there's no denying the visceral feeling that VR can bring compared to traditional gaming.

NVIDIA also prepared a number of G-SYNC gaming notebooks, including the AORUS X5 and MSI GT72 2QD Dominator G, for gamers to enjoy smooth, tear-free gameplay on recent PC titles like Middle-Earth: Shadow of Mordor, and The Witcher 3: Wild Hunt.



A close-up look at the 4K gaming system. And yes, that is a 3-way SLI GTX 980 Ti setup.



The MSI GT72 2QD Dominator G is one of many gaming notebooks to be equipped with G-SYNC technology.

ASROCK ROCKING THE DIY SCENE

W

hile it can be argued that a majority of the consumer market prefers a fully-assembled system for their needs, it can't be denied that the DIY market is relatively strong. Banking on the growth of this segment, ASRock launched a number of powerful motherboards, and a rather interesting high-performance router.

At COMPUTEX 2015, the company unveiled upgraded versions of its Super Alloy Series motherboards. Among the highlights of these motherboards include the use of Intel's X99 series chipset, which supports 4th and 5th generation Intel Core processors and DDR4 memory. The flagship motherboard for this series is the Fatal1ty X99X Killer.

Of more interest though, is the G10, a gaming router that's supposedly designed for Microsoft Windows 10. The 4T4R router has dual-band support and is capable of wireless streaming up to 1,733Mb/s on 5GHz, and 800Mb/s on the 2.4GHz band. It also has a plethora of enhancements that basically help to give you to the best online gaming experience.



Here's the Fatal1ty X99X Killer, the flagship gaming motherboard from ASRock



A closer look at the ASRock G10, which is a router that specializes in boosting your online gaming experience.

CORSAIR CHILL FACTOR

Though Corsair made a name for itself with its high-performance memory modules and PSUs, they've come a long way since then. This year, they've launched a number of new products under the Corsair Gaming family. Of course, they

haven't forgotten their roots, as there were numerous new PSUs on show as well.

The company has a new PSU range called the RMi series, which comes in four flavors, from 650W to 1,000W. Fully modular and equipped with Japan-made capacitors, these PSUs are of top-notch performance. Apart

from that, there's also the Bulldog and Lapdog. The Bulldog is a compact PC capable of 4K gaming, while the Lapdog is a tray-like conception that combines both a keyboard and mouse. There is also a new GPU cooling solution called the HG10, which is basically a liquid-cooling solution for NVIDIA GeForce GTX TITAN X, GTX 980, GTX 980 Ti, and GTX 970.



The Corsair Bulldog is a compact PC capable of 4K gaming.



The HG10 is a GPU cooler designed for those who want to overclock their graphics cards.

ECS GOING MINI

This year, Elitegroup Computer Systems (ECS) announced several new products, including two LIVA mini PCs, a 2-in-1 notebook aimed at students, and intelligent gateways that enable IoT integration. If you're unfamiliar with ECS' lineup, the LIVA series consists of mini PCs that are stylish, yet highly portable.

The first LIVA that was shown was the LIVA X², which is equipped with Intel's new Braswell SoC, wireless AC, Bluetooth 4.0, and supports

the M.2 interface. As for the LIVA Core, it's the world's first PC that uses Intel's 14nm Intel Core M processor. It also has integrated WiDi and M.2 support. It's also ready for Windows 10, with a dual-microphone system in place.

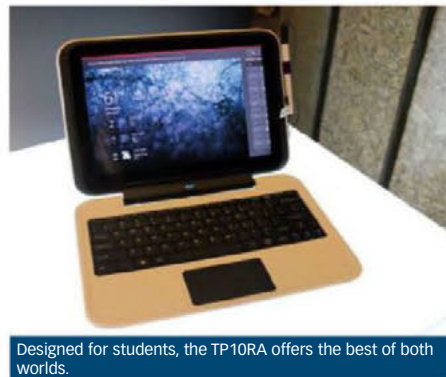
There's also the TP10RA, a device that has a detachable keyboard and is powered by a quad-core Intel Atom Z3735. It's certified IP41, supports both Android 4.4 KitKat and Windows 8.1, and has ample connectivity options. Lastly, there were a number of intelligent gateway solutions, such as the GWS-QX, which helps automate buildings and encourage IoT.



Here's a closer look at the LIVA Core.



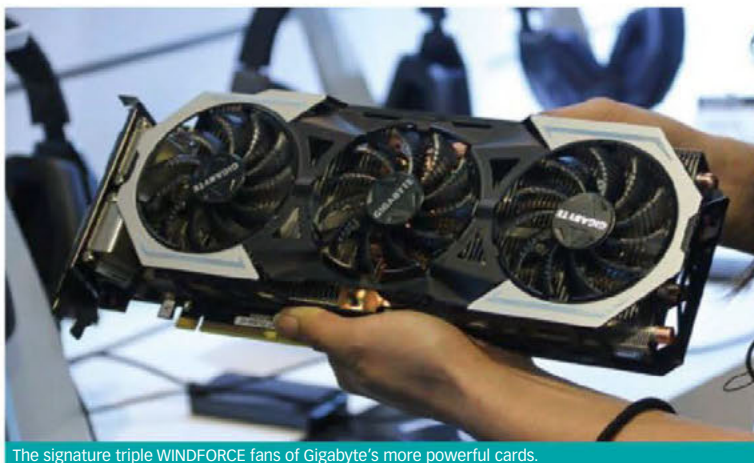
With a 14nm Intel Core M processor, the LIVA X² is fanless and incredibly compact!



Designed for students, the TP10RA offers the best of both worlds.



GIGABYTE STEPPING INTO NEW TERRITORY



The signature triple WINDFORCE fans of Gigabyte's more powerful cards.



We hope to see more than a sole USB Type-C port as the connector gains in popularity.



The smaller one has one less motor so it doesn't yaw up and down on its own.

W

e all know Gigabyte for PC components, and the company had quite a bit to show at COMPUTEX 2015. With NVIDIA announcing the GeForce GTX 980 Ti not too long ago, Gigabyte wasted no time in introducing several variants of the card, together with the signature WINDFORCE cooling system.

There is also the GA-Z170X-Gaming G1 motherboard, which supports 6th generation Intel Core processors, as well as USB Type-C. This is one of the first motherboards that we've seen supporting USB Type-C, and we certainly hope that more of its kind will show up, perhaps even eventually replacing the other I/O ports on the motherboard as USB Type-C becomes more commonplace.

But of all the things Gigabyte that we saw, the one that stood out the most has to be the Selfie Assistant. It's not a PC component nor is it in any way relevant to gaming. What it offers is an excessively sophisticated device to feed one's vanity. It runs on rechargeable batteries, has motors to rotate itself and with a connected phone, allows your phone to track your face.

MSI GAMING ALL DAY LONG

A

s expected from MSI, they've launched a volley of new gaming notebooks at COMPUTEX this year. Equipped with 5th generation Intel Core processors, Nahimic sound technology and NVIDIA

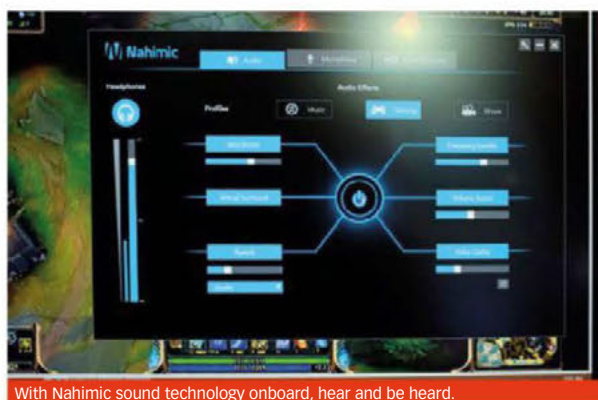
G-SYNC technology, the new notebooks from MSI are the epitome of portable gaming PCs.

The GT80 2QE Titan SLI leads the charge, with two NVIDIA GeForce GTX 980M GPUs and a 5th generation Intel Core i7 processor. What's more, it has an integrated mechanical keyboard and a dynamic touchscreen ala Razer's Switchblade touchscreen.

For those who appreciate good audio, the MSI GS and GE series is bound to impress. They're equipped with Nahimic sound technology, which was originally adopted in the military and aeronautics industry. This high-definition audio technology offers support for advanced audio technology like virtual surround sound, a frequency leveler, bass boost, and voice clarity enhancement.



For powerful gaming performance, look no further than the MSI GE series.



With Nahimic sound technology onboard, hear and be heard.



You can also take this along while camping.

VIEWSONIC VISUAL CLARITY

B

eing a visual-driven company, you can expect ViewSonic to come up with some impressive monitors and projectors. And it has, as we saw at COMPUTEX 2015.

Beginning with projectors, we saw the PLED-W800 LED projector, and thought this would be something on-the-go professionals might take with them wherever they go. It measures 175 x 138 x 51.5 mm, but is equipped with a MHL-enabled HDMI port, an SD card slot, a USB Type-A port and optional Wi-Fi or Miracast compatibility.

As for monitors, there's the VP2780-4K monitor. As the name suggests, it's a 4K display, and sports what ViewSonic calls SuperClear IPS panel, which displays up to 1.07 billion colors on its 27-inch screen. Then there's the VP2785-5K. It was still in its prototype stages during COMPUTEX 2015, so it looks visually similar to the VP2780-4K, save the fact that it's a 5K display.



Squeezing nearly 15 million pixels into a 27-inch screen makes everything look tiny.



The VP2780-4K also comes pre-calibrated to provide color accuracy.

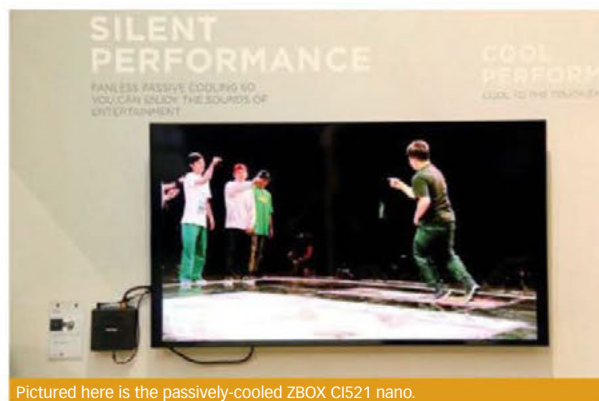
ZOTAC INNOVATIVE JUNCTURE

I

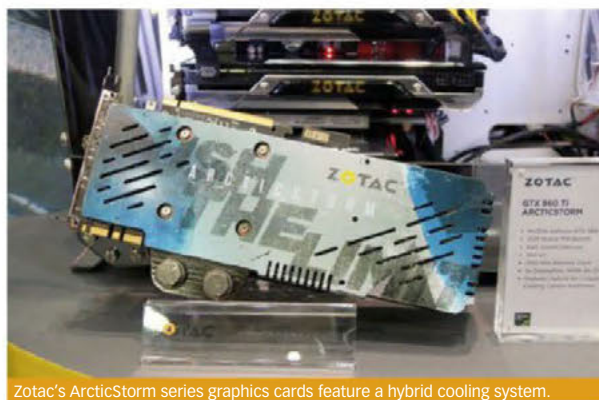
n this day and age, simplicity is the name of the game, which is why mini PCs are becoming ever more popular. Zotac was of course at this year's COMPUTEX and showcased a number of powerful ZBOXes – their take on mini PCs.

The ZBOX C series features 5th generation Intel Core processors, and are more than capable of 4K playback. Needless to say, this series of mini PCs are also more than capable of everyday computing tasks. For those who require something small and light for business, there's the ZBOX MA760, which is powered by an AMD FX-7600 APU. This mini PC supports up to four displays, thanks to AMD Eyefinity technology, and can be fitted virtually anywhere, thanks to a small form factor.

Finally, there's the ArcticStorm series graphics cards, which are equipped with a hybrid thermal system that cools the GPU with air, or both air and liquid. Three sets of fans and aluminum fins further help to dissipate heat efficiently.



Pictured here is the passively-cooled ZBOX C1521 nano.



Zotac's ArcticStorm series graphics cards feature a hybrid cooling system.

APACER BUMPING UP SECURITY

S

ecurity and privacy seem to be the prevailing trend around technology. The same can be said about the people behind Apacer, if the products tell us anything. There's the Apacer NFC SSD, which uses your phone's NFC signature as a key. You'll have to tag the SSD with your phone before you can make changes to its content. Then there's the AH650 Fingerprint Flash Drive, which should be self-explanatory.



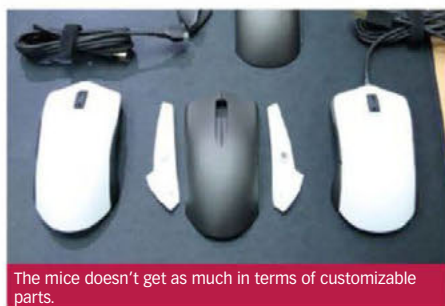
There's also an app that tells you more about the SSD.



Should you hurt your key finger, however, your data might be stuck in there for a long, long time.



Individual parts from the MasterCase 5, MasterCase Pro 5, and MasterCase Maker 5 appear to be interchangeable between the series.



The mice doesn't get as much in terms of customizable parts.



The same goes for the cooling pad.

COOLER MASTER MODULAR MASTER

G

oing modular seems to be the name of the game at Cooler Master. The key product series is the MasterCase 5, the world's first mid-sized tower with exterior expandability. That said, there are other things going modular as well, such as notebook cooling pads and gaming mice.

TAP FOR
VIDEO

GENIUS GOING ALL ROUND

G

enius seems to have an armory here at COMPUTEX 2015, with a bit of everything that might pique the interest of anyone who passes by its booth. From headphones and speakers to gaming peripherals like keyboards and mice; Genius seems to have it all.



From audio...



... to mice...



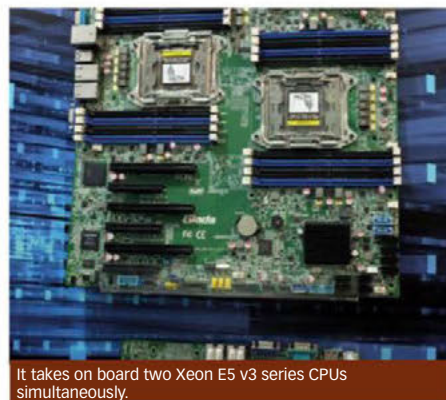
... and even power banks.

GIADA BOTH DAVID AND GOLIATH

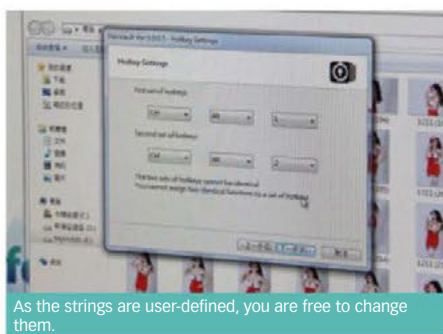
Being a mini PC maker, Giada wouldn't be passing on the opportunity to make a gaming mini PC. The result of that is the D2308U, equipped with an Intel Core i7-4500U processor, NVIDIA's GeForce GTX 750 graphics and 8GB of DDR3L RAM. Or if server motherboards are what you are looking for, then the N50M-BD would be of greater interest.



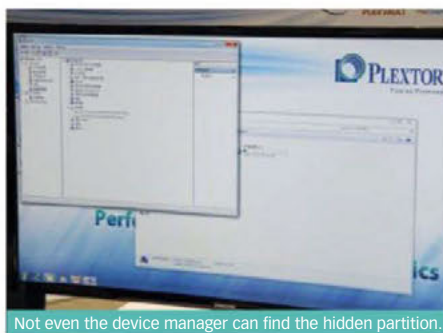
It also has 1TB of storage, three USB 3.0 ports, two USB 2.0 ports, a LAN port, Wi-Fi, Bluetooth, a DVI port and two HDMI ports.



It takes on board two Xeon E5 v3 series CPUs simultaneously.



As the strings are user-defined, you are free to change them.



Not even the device manager can find the hidden partition.

PLEXTOR YOUR PERSONAL VAULT IN AN SSD

When every other SSD manufacturer makes SSDs with the same high speed, massive capacity and low price, bundled software becomes the key seller for many. And for Plextor, the key software to do just that is the PlexVault. Effectively a hidden partition on the SSD, unless unlocked using two strings of user-defined keys, the vault cannot be accessed, even by the device manager and disk management utility.



Thanks to AMD FirePro cards, outputting content to 24 displays is possible.

SAPPHIRE MULTI-DISPLAY GOODNESS

From Sapphire is an updated multi-display solution that makes use of AMD's FirePro platform. Called the AMD Eyefinity Multi-GPU SLS 4x4 system, this system runs four AMD FirePro W7100 cards, effectively allowing it to push content to up to 24 displays simultaneously.



Synology's RT1900ac router bagged the Best Choice Golden award at COMPUTEX 2015.

SYNOLOGY UNINTERRUPTED NETWORKING

S

ynonymous with networking products, Synology had some good exposure during this year's COMPUTEX. Its RT1900ac router

bagged one of the eight Best Choice Golden awards. To win this award, the router had to beat 450 other entries in the Communications category.

THECUS PUTTING WINDOWS ON NAS

M

ost NAS units that we're familiar with run on Linux or some form of proprietary OS. Thecus showcased a range of NAS systems that do things a little differently: they run on Windows Storage Server

2012 R2 Essentials. The OS is pre-installed on an embedded SSD independent from the drive bays, allowing for seamless setup and integration.



And one such NAS running Windows Server 2012 R2 Essentials is the 4-bay Thecus W4000.



And then there are some of Thermaltake's customers who really push the idea of 'custom' to its limits.



THERMALTAKE PUSHING THE LIMITS

T

hermaltake has always been known to make some really cool-looking PC cases and the liquid cooling that goes inside them. The brand doesn't shy away from custom ones either, as the company showcased the various stripped-down parts that can go into making a custom case.

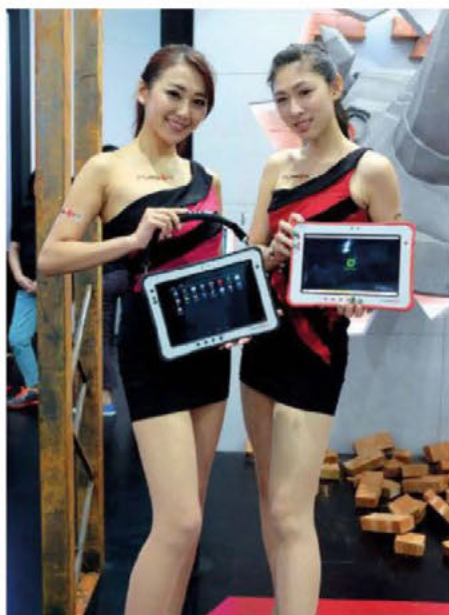
TAP FOR
VIDEO

LADIES OF COMPUTEX 2015

N

o COMPUTEX is complete without the lovely and talented show girls gracing the exhibition showfloor to charm the crowd with their

bright smiles, enthusiasm, and product knowledge.





CLOUD IS THE NEW NORMAL



More and more companies are becoming cloud-first, and it's increasingly hard to stay competitive without the cloud. **Amazon Web Services (AWS)** recently held its first **AWS Summit** in Malaysia, which saw more than 1,000 attendees from enterprises, SMBs, startups, government agencies, non-profits, as well as the **AWS User Group** in Malaysia to learn about the AWS cloud services and make connections with other IT professionals and developers. After all, why reinvent the wheel when you can have the complete package to build businesses from scratch in the cloud?

by *Michael Low*



Stephen Orban, Head of Enterprise Strategy, Amazon Web Services, made mentions of the AWS Activate program, which provides startups with the resources they need to grow their businesses, and AWSome Day – free one-day training event as delivered by AWS Education's technical instructors.

Why AWS?

The AWS platform got its start in 2006 with Amazon S3 (Simple Storage Service) and EC2 (Elastic Compute Cloud). Since then, both services have experienced a year-on-year increase of 102 percent in data transfer and 93 percent in instance usage respectively, comparing Q4 2014 to Q4 2013. And today, the number of cloud services has increased exponentially to more than 1,200 features and services to provide scalable databases, stream thousands of data in real time, simplify mobile app deployment – and are being adopted by more than a million active customers around the world.

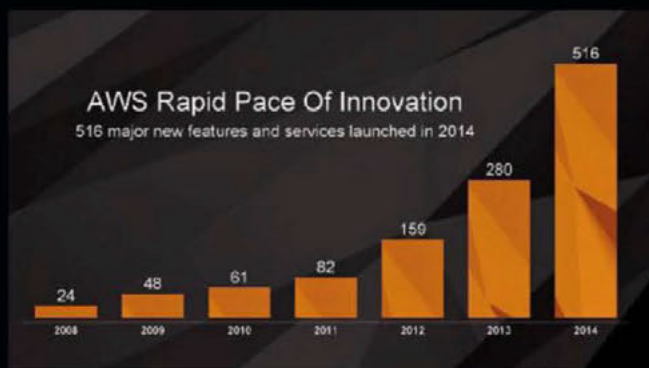
Malaysia is an important market for AWS, with Singapore being one of **11 AWS Regions** that is nearest to Malaysia-based customers to leverage the services for their high availability applications. As a single region has multiple **Availability Zones** (a.k.a. clusters of datacenters), applications can achieve greater levels of fault tolerance and stability, while the global network of **53 Edge Locations** – 14 of which are in Asia – provides a content distribution network with a global reach in minutes. In fact, 21 AWS channel partners were on hand to showcase their services and solutions at the AWS Summit Malaysia.



Early adopters who took to the stage at the AWS Summit Malaysia include Dexter Lau, Group Executive Director of Kim Teck Cheong Consolidated; Wei Zhu, CTO of Grab Taxi; and Jack Sen Pang, VP of Technology at 123RF.

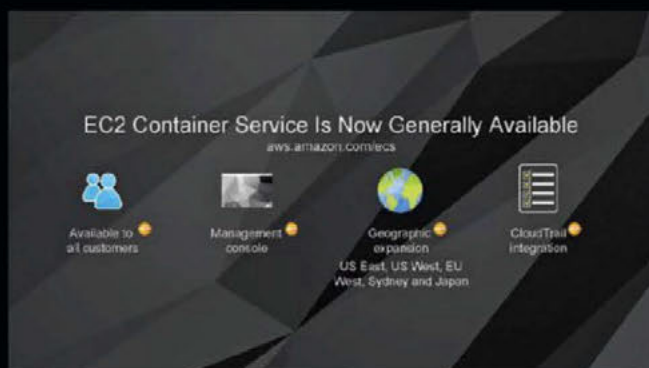
What the Customers Are Saying

AWS' on-demand delivery model allows businesses to focus on building and running their applications and services, only paying for what they use with no upfront expenses or long-term commitments. Dexter Lau, who serves as the Group Executive Director of Kim Tek Cheong (KTC) Consolidated, spoke about how migrating its data center to AWS has enabled the family-owned enterprise to focus on expanding its business presence in Sabah and Sarawak, without having to worry about the backend infrastructure. To date, KTC is one of the largest fast-moving consumer goods (FMCG) distributors for international brands like Coca-Cola, Danone, and Proctor & Gamble in East Malaysia.



These days, it's fairly common to see startups disrupting and transforming long-standing industries. Popular taxi booking app MyTeksi, for example, was built entirely on the AWS platform, which processes seven bookings per second, on average. Grab Taxi, the startup behind MyTeksi, saw its business grow rapidly in a span of two years, serving six Southeast Asia countries with 80,000-strong drivers. Using AWS, the company was able to optimize its costs in the cloud with Auto-Scaling, which automatically brings down the number of Amazon EC2 instances during lulls at midnight. By efficiently analyzing data pertaining to usage, location and trip experience, Grab Taxi is able to accelerate time-to-market of new services and features to give MyTeksi a competitive advantage.

Those in the print and online publishing field know the importance images. 123RF is one of the top five microstock sites in the world, garnering over 15.4 million visits per month. As a site that offers over 40 million stock images, videos and audio tracks, 123RF has to handle heavier traffic loads than your average website. According to VP of Technology Jack Sen Pang, the company previously attempted to build its own content delivery network (CDN) by purchasing servers in several regions, but found it challenging. Thanks to Amazon CloudFront, 123RF is able to deliver content with low latency and high data transfer speeds to its customers. The company relies from 80 to 120 EC2 instances to perform batch image resizing, real-time image processing, and handle search queries, among other tasks.



AWS also took the opportunity to announce the general availability of Amazon EC2 Container Service (ECS), which supports Docker containers to easily run applications on a managed cluster of EC2 instances.

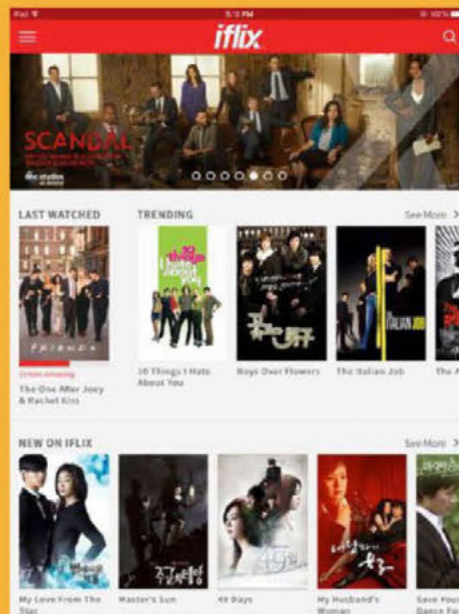
The New TV

There's another startup relying on AWS from the get-go, and it's none other than iflix, Southeast Asia's answer to video streaming service Netflix. The up-and-rising Internet TV platform, which is currently available to consumers in Malaysia and the Philippines, offers a steadily growing selection of TV shows and movies from the U.S., U.K. and Asia-Pacific region.



Ash Crick, CTO of iflix.

iflix, which runs entirely on AWS, leverage on Amazon Cognito for user authentication, Kinesis for collection of real-time data, such as viewing patterns, which are then pushed into DynamoDB and Elastic Search to make sense of that information. S3 and CDN, on the other hand, enable fast content delivery to the viewers, while transcoding duties are share with the Vimond Platform.



"The company was born since September last year, so we've gone from [zero] essentially to launching into multiple countries, with a business model that relies on scale. Everyone should have access to amazing content, and AWS is certainly a massive part of realizing that vision. It's safe to say that iflix wouldn't be possible without AWS, which is quite distinct from other cloud service providers," commented Ash Crick, Chief Technology Officer, iflix.

Users can sign up for a 14-day trial with iflix, while monthly and annual subscription options are available for unlimited access to its library on up to five devices.

HWM
MALAYSIA

Golf Digest
Malaysia

GolfTech

SUPPLEMENT

STAYING COOL
WITH **ADIDAS**
CLIMACHILL

MOHD SUKREE
OTHMAN —
HITTING IT
LONGER

PROJECTOR
FOCUS: **EPSON**
EH-TW5200

TECHNOLOGY BENEFITS THE GAME



Brought to you by

TaylorMade

TAYLORMADE AEROBURNER WOODS & HYBRIDS

FASTER MEANS LONGER

Who doesn't want to hit it longer?

With a static weight of 300 grams, the AeroBurner driver is a popular choice with amateurs and professionals alike who seek more distance.

Technological benefits that stand out are TaylorMade's fourth generation Speed Pocket and the Aero Hosel.

The Speed Pocket is the "secret" of this 460 cc driver as it generates increased ball speed, better launch angle and reduced spin rate.

TaylorMade did away with an adjustable hosel in the AeroBurner family to compensate for the increased size of the Speed Pocket that extends across the length of the sole.

The Speed Pocket also features in the fairway woods that feature an aerodynamic shape with a shallow face, raised center crown and a super strong Ni-Co 300 Superalloy material for the clubface.

This allows for more forgiveness on mishits and face flexion that launches the ball higher, resulting in longer drives.

The Speed Pocket in the fairway woods and hybrids was developed over a few years before it was launched to ensure its durability.





EDITOR'S TECH PICK

There's no adjustability but the Taylor AeroBurner family of woods and hybrids features an 'Aero Hosel' that reduces drag during the swing.

AeroBurner Mini Driver

Coming off the success of the AeroBurner family of woods and hybrids, TaylorMade's Aeroburner Mini Driver was designed for those that enjoy hitting smaller club heads.

The club head measures at 253 cc's but is substantially bigger than a fairway wood.

The Speed Pocket generates a lot of speed with reduced spin (100 to 200 rpm) compared to the SLDR Mini Driver.

The length of the driver is 43.5 inches and comes in lofts of 12, 14 and 16 degrees.



"THE SLDR MINI DRIVER CAPTIVATED THE GOLFING PUBLIC BY DELIVERING BETTER 3 WOOD PERFORMANCE FROM THE TEE, THE AEROBURNER MINI DRIVER BRINGS MORE SPEED AND FORGIVENESS TO THIS POPULAR NEW CLUB TYPE"

— BRIAN BAZZEL

Senior Director Metalwood
Product Creation



climachill Benefits

- Enhanced ventilation, max comfort
- Cooling effect for entire garment with climachill fabric
- Lightweight, opaque fabric
- Moisture wicking

adidas climachill

The Coolest Shirts in Golf

There is revolutionary innovation underneath the coolest apparel line ever made for golf

Where there's a will, there's a way...

Cooling the golfer in hot weather has always been the perennial question for designers of golf apparel.

But what else can you do with fabrics to cool the golfer down when temperatures rise?

adidas golf engineers have revolutionized golf apparel technology with proprietary climachill fabric, engineering the most breathable material the company has ever incorporated into its apparel lines.

Delivering a cooling sensation upon contact with the skin, small aluminium

dots were strategically located inside the back neck, one of the warmest areas on the human body.

The climachill fabric construction utilizes woven titanium fibres that maximize surface contact with skin.

Remarkably light, climachill fabric acts like an open mesh to increase air permeability, drawing heat away from the body and allowing for unmatched ventilation and evaporation of sweat to keep golfers cool like never before.

Designed and developed to raise performance levels by helping regulate body temperatures, the adidas climachill apparel featured prominently in the scripting of Sergio Garcia, Dustin Johnson and Jason Day throughout the 2014 PGA Tour season.

"We're consistently looking to develop the most innovative products to keep athletes comfortable so they can focus on performance," said Davide Mattucci, Director, Global Apparel

Product Marketing for adidas Golf. "The climachill fabric is, by far, our most advanced to date and the benefits are actually developed at the microscopic level. It looks and feels like a solid performance fabric, but breathes like an open-air mesh. Once someone feels it, the difference is undeniable."

The climachill apparel collection includes five men's polos and three women's polos.



Aluminum dots create cooling sensation



climachill Energy Bonded Polo



climachill Heather Solid Polo

Driving Further

New technology brings great benefits to a golfer's game. Even professionals like Mohd Sukree Othman rely on them.

Technology in golf has evolved over the years since the first metal wood was designed by Gary Adams, the founder of TaylorMade, in 1979.

That first of its kind metalwood designed by Adams was also known as the Pittsburgh Persimmon.

That "invention" ended the life of wooden persimmon club heads and catalysed the start of a race between brands to innovate new technology in the game.

Professional golfer and TaylorMade staff player Mohd Sukree Othman recently switched to the TaylorMade AeroBurner family of woods.

The 39-year-old who was born in Ipoh, Perak, now competes at the highest level with a 9.5-degree AeroBurner Driver, a 15-degree 3-Wood and an 18-degree 5-Wood.

"The technology found in the AeroBurner woods gave my game a shot in the arm," said Sukree. "When I first hit the driver at the range, I noticed that my ball trajectory was more penetrating with less looping. And with a reduced spin rate, I have gained more distance, as the ball just runs more in dry conditions."

Sukree may not be the tallest or biggest golfer on the PGM Tour and Asian Development Tour, but he is known as one of the straightest drivers of the ball.

"I certainly discovered more consistency with the AeroBurner driver in terms of accuracy and I like the overall look of the club, as the face is more square. That gives me a lot of confidence when I address the ball and allows me to just release the club effortlessly," said Sukree who started as a caddy with the Royal Perak Golf Club at age 13. "And, the Speed Pocket is a great invention. The ball just jumps off the face of the club and launches the ball faster. In terms of distance increment, I think my driver distance have increased by at least 10 percent. The fairway woods feel great at impact too and I can hit them with confidence from most lies."

Sukree has come a long way since his passion for the game started at Royal Perak as a caddy and later on as a staff of Pan-West at the club's driving range.

Who knows how far his game will fly with the AeroBurner technology in his hands?



FAST FACTS

Mohd Sukree Othman

Driver Swing Speed
100 mph

Driver Swing Weight
D3

Irons
TaylorMade RSi

1st Amateur Event Win
2000 at Harvard

1st Professional victory
PGM Tour at Harvard



GolfTech | Boost

GET A BOOST

Groundbreaking cushioning technology
sets tone for golf footwear revolution





Golf footwear is not just about the spikes that give traction and stability during the motion of the golf swing.

In January, adidas Golf unveiled the revolutionary BOOST™ cushioning technology in the adipower Boost for both men and women.

The brand had created yet another industry-changing innovation, as the BOOST technology was designed to deliver maximum energy return, responsiveness and unparalleled comfort.

adidas' BOOST foam cushioning is comprised of thousands of TPU (Thermoplastic Polyurethane) energy capsules fused together by way of a proprietary high pressure steam moulding process.

At their core, these capsules are the essence of the innovation; its function, storing and releasing energy efficiently throughout the swing and delivering maximum energy return as athletes perform.

While traditional EVA foam hardens and softens dramatically when temperatures fluctuate, BOOST foam retains consistent cushioning and is incredibly responsive in both hot and cold conditions.

Combined with a lace-in saddle, fitsleeve tongue wrapping, external heel counter and a fitfoam® PU sockliner, adipower Boost delivers a more precise, comfortable fit for all golfers.

Taking everything learned from BOOST technology's remarkable success in running, basketball and baseball, designers have created the most comfortable footwear in adidas Golf history.

For extraordinary performance, adidas Golf conducted extensive player testing and results from forceplate testing combined with critical tour player feedback for more than a year, incorporating key learning and utilizing revolutionary and tour-proven gripmore® technology in the shoe's construction.

For the first time, adidas Golf has placed gripmore spikes of varying sizes, strategically locating them on the outsole to deliver improved and more efficient traction and stability where it's needed most – the swingplane.

Jason Day, adidas Golf brand ambassador and #8 in the current Official World Golf Ranking, was first introduced to the shoe during testing in March of 2014, where he raved about the footwear's aesthetic appearance, comfort and performance attributes.

"When I first put them on, I immediately noticed how comfortable they were. I didn't

want to take them off," said Day. "During the swing, the energy return is noticeable – as if you can feel the technology in action. I wanted to keep them the moment I saw them. They feel good, and look good, too."

The women's adipower Boost features many of the same design properties and technologies as the men's model, including BOOST midsole foam in the heel for endless energy return and a lace in saddle. Also similar to the men's model, the external heel counter adds even more lateral stability and support of the foot and gripmore technology is placed in the same location on the outsole for instantly recognizable traction.

"Innovation is at the core of everything we do, and we are relentlessly looking to push design, engineering and performance boundaries to create footwear that helps our athletes and all golfers perform at their highest level," said Masun Denison, Director, Global Product Marketing, Footwear at adidas Golf. "adipower boost is a perfect example of utilizing breakthrough technology never seen before in golf to create the ultimate performance golf shoe."

The brand added the adipower sport Boost, built on the iconic supernova running last and utilizing many of the same design and fabrication elements as adipower Boost in a streamlined, spikeless design with strategically-placed adiwear™ traction.

Bigger, Better, Brighter

EH-TW5200 Home Theater Projector

Not all projectors are created equal, and the **Epson EH-TW5200** is here to debunk common myths about home projectors. It's capable of white and color brightness of up to 2,000 lumens, which meant that you no longer require a dark room to appreciate the brilliance of Full HD 1080p – both 3D and 2D.

The **EH-TW5200** also boasts up to 300-inches in projection size, requiring only a 3-meter distance to beam a 100-inch image on any wall or screen to accommodate the smaller viewing space. The flexibility extends to its connectivity options, which include two HDMI ports (one being MHL capable) for easy pairing with set-top boxes, game consoles, smart devices, and more.



Epson Malaysia Sdn Bhd
(03) 5628 8288

HWM

"The EH-TW5200 is a great way to enjoy EA Sports' Rory McIlroy PGA Tour, simply because the combination of a 15,000:1 contrast ratio, fast mode, and Epson's proprietary 3LCD technology allows for vibrant visuals and lag-free gaming. In addition to immersive 3D viewing, it also supports 2D-to-3D conversion when you want to unwind with a movie or two."

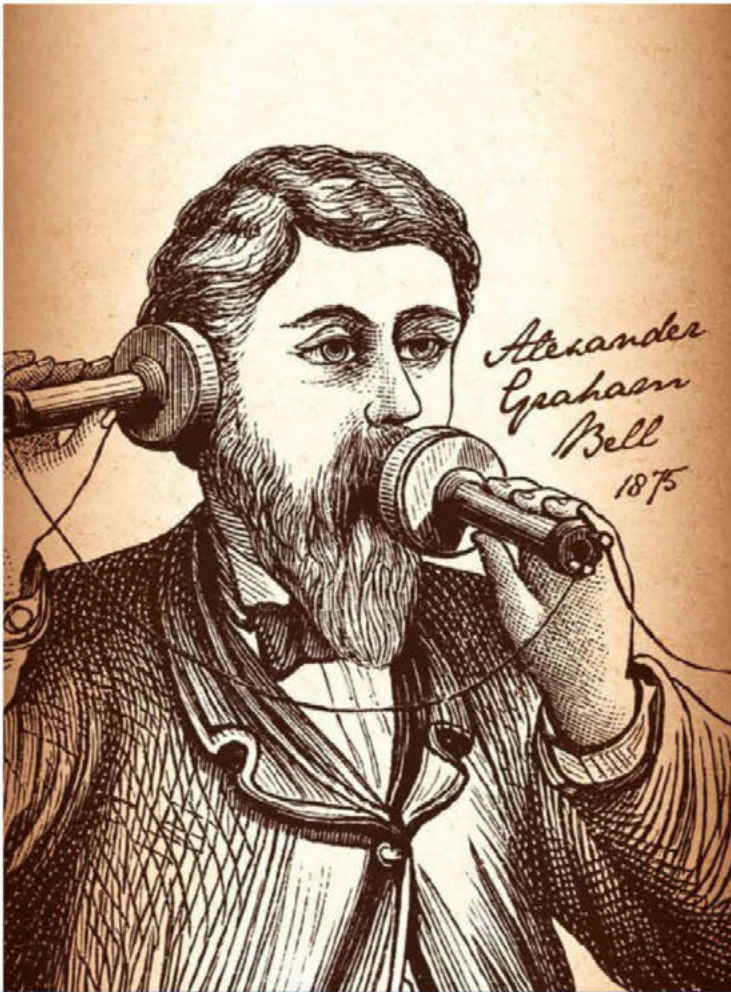
Golf Digest

"We liked the 'fast mode' of the EH-TW5200 that projected graphics of golf and other video games smoothly and accurately. There was no lag time and the images of the fairways and greens were vividly true-to-life. Furthermore, the split-screen feature allowed us the option to watch the Golf Channel or a movie while playing a game. A must-have on rainy days for the diehard golfer."

A Touch of Brilliance



If analyzing golf games are your thing, then the **Epson EB-595Wi** is for you. Built with finger-touch technology (a first for 3LCD projectors), it allows two individuals to draw and annotate on the interactive area, using two fingers and the accompanying pens at the same time. Ideal for boardroom and classroom alike, the ultra-short throw projector delivers sharp, vibrant images of up to 3,300 lumens, easy wireless projection from the iProjection app (for iOS and Android), and a slew of eco-friendly features.



Just as great innovators have changed the way we communicate, the **Epson interactive projector** connects you to a whole new realm of possibility.



MASTERS OF INNOVATION.

Discover innovative new features that will take your presentations to the next level. With finger-touch interactivity and multi-location capabilities, Epson interactive projectors let you challenge the boundaries of creativity and collaboration.

Visit www.epson.com.my/interactive to redefine the way you communicate.



Call **1800-8-17349** (Toll-free) to find out more about Epson interactive projectors.

[f](https://www.facebook.com/EpsonMalaysia) EpsonMalaysia [@EpsonSEA](https://twitter.com/EpsonSEA) [YouTube](https://www.youtube.com/EpsonSouthEastAsia) EpsonSouthEastAsia [in](https://www.linkedin.com/EpsonSoutheastAsia) Epson Southeast Asia

ENGINEERED FOR BUSINESS

HWM Tech Picks

If you aren't already aware, there are actually more ways than one to enjoy the prestigious sport that is golf, and it doesn't necessarily require you to be out on a golf course – all you need is just a little bit of technology. So without further ado, here are a few tech essentials that we believe will complement the golfer in you, whether at home or on the turf.



Samsung SUHD 4K Curved Smart TV 78JS9500

If you consider the lush greenery of golf courses to be a sight for sore eyes, imagine the pampering your eyes will receive when they are displayed on the massive, 78-inch curved screen of the Samsung 78JS9500 4K Curved Smart TV. Its super high 3,840 x 2,160 resolution will allow you to distinguish the individual blades of grass on the golf course, while its Nano Crystal technology will produce vibrant colors that will leave other TVs green with envy.

Philips HTB5150K

The Philips HTB5150K is your one-stop solution for a home theater system. Its single soundbar setup is powerful enough to match that of a traditional 5.1 speaker system, while its wireless subwoofer keeps things neat by eliminating any unsightly wires from running across and along the floor. The system even comes replete with a Blu-ray Disc player for you to watch your film favorites in amazing Full HD quality.





Sony PlayStation 4

The joys of golf need not necessarily come to an abrupt halt when a thunderstorm comes along. There are plenty of golfing video games that are available for Sony's PlayStation 4, each of them intricately made to keep things as true-to-life as possible. Such an example is a game called The Golf Club, and it features multiplayer gameplay that will allow you and up to three of your friends to play together for maximum fun.

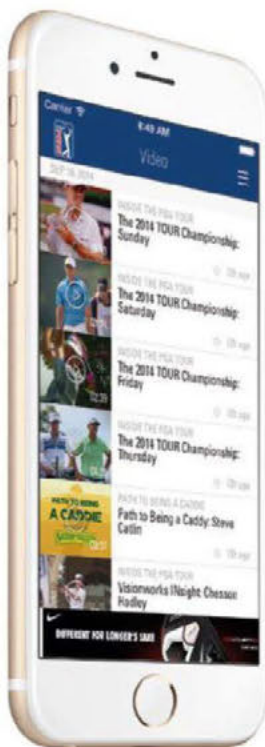


Parrot Zik 2.0

If you're the kind of golfer who needs to hear the soothing sounds of music during practice runs, there's no better pair of headphones to get you your music fix than the Parrot Zik 2.0. It's light, has an active noise-cancellation system, and reproduces your music with the accuracy it deserves. Best of all, its wireless design means you can spend more time practicing, and less time shifting cables out of your way.

Apple iPhone 6 Plus

The iPhone 6 Plus is the gateway to a world of handy golfing apps on the Apple App Store. Such apps include the PGA Tour Mobile app, which allows you to stay up-to-date on the latest happenings of the ongoing PGA Tour, and the Swingbot app, which can work as your personal coach by analyzing your golf swing when you upload a video of it onto the app.



EA Rory McIlroy PGA Tour

The new Rory McIlroy PGA Tour video game from EA will allow you to play as many rounds of golf as you want, no matter rain or shine. The game, which features titular world's no. 1 golfer Rory McIlroy, will feature a total of three gameplay styles: Arcade, Classic and Tour. The game will be available on July 14 for PlayStation 4 and Xbox One consoles.

GET MORE OUT OF **HWM** IN OUR DIGITAL EDITION



Exclusive to the July digital edition



INTRODUCTORY VIDEO

Find out what we have in store for you this issue.



ADDITIONAL FOOTAGE

Hands-on video on the DJI Phantom 3.



FEATURED VIDEOS

Additional videos from COMPUTEX Taipei 2015.



EXTRA PHOTOS

Photos taken using Xiaomi's Mi 4i flagship smartphone.

...and more!

Available on **Apple Newsstand** and **Google Play**

Or get the **Magzter App** for **FREE**

A BluInc Magazine

Follow us on [f](#) /myhwm and [t](#) @myhwz

TEST

LAB RESULTS

Every month behind the doors of our super secret gadget testing facility, the latest tech products are put through their paces using industry-recognized benchmarks and our own blend of real-world usage scenarios. Here are our findings.

HOW WE RATE:

Products are rated on a scale of **1** to **10**; **1** being so abysmal, it should be a crime to sell it, and **10** being almost perfect. Come now, nothing is perfect. An Editor's Choice may also be awarded based on unique merits.

MORE INSIDE >

PHILIPS HTD5550
Powerful cinematic surround sound.

ARLO BY NETGEAR
Wire-free and weatherproof.

DJI PHANTOM 3
Capture your world in 4K (or 1080p).

KINGSTON HYPERX SAVAGE SSD
Slim and fast.



DISCLAIMER

While every care is made to ensure accurate or latest retail pricing is printed in our reviews, HWM Malaysia cannot be held responsible for changes in retail prices after time of print. You are advised to look for the latest pricing from retail outlets and where there is a discrepancy between our printed price and price declared by a shop, the latter will prevail in choice.



GETTING THE MOST BANG FOR YOUR BUCK

It's not unusual for the flagship smartphones to cost upwards of RM2,500. But if you don't feel like paying a premium for boasting rights, there's good value to be found in mainstream smartphones, many of which actually boast flagship features like Full HD displays and 64-bit octa-core processors. Here are seven smartphones under RM1,000 you should consider.

Text by *James Lu*

Photography by *Veronica Tay + Cheryl Raharjo*

Art Direction by *Ken Koh + Ian Chong*

vs
 ASUS ZENFONE 2
 •
 LENOVO A7000
 •
 MICROSOFT LUMIA 640 LTE
 •
 OPPO MIRROR 3
 •
 PHICOMM P660
 •
 XIAOMI MI 4I
 •
 ZTE BLADE S6



BA



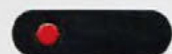
RM899



RM749



RM898



ON SALE



SOLD OUT



COIN RETURN
LEVER



ASUS ZENFONE 2 (ZE551ML)

ASUS has a few different versions of the ZenFone 2 available. For this shootout, we'll be looking at the ZE551ML 5.5-inch Full HD ZenFone 2 with 2GB RAM. If you're more of a power user, there's also a 4GB RAM version, which also has a slightly faster processor, available for RM1,299.

The ZenFone 2 has an ergonomically curved profile, which fits comfortably into the palm of your hand, letting you keep a firm grip on it. While the phone is entirely plastic, it has a brushed metallic finish on its rear cover that actually looks fairly convincing, at least at arm's length. Removing the back cover reveals two Micro-SIM slots and one microSD card slot. The ZenFone 2 supports Cat4 LTE, which provides data transfer rates up till 150Mbps.

Unusually, the volume rocker on the ZenFone 2 is found on the rear of the device, similar to LG's flagship phones. However, on a phone this size, we appreciated the rear button positioning and while it can take a bit of getting used to, we found it ergonomically comfortable and generally easier to reach than side buttons. On the other hand,

for some reason, ASUS has positioned the power button all the way on the top edge of the phone, which is hard to reach when using the phone one-handed. On the plus side, the ZenFone 2 has a built-in feature that lets you double-tap the screen to turn the display on/off, so you may never need to use the physical power button anyway.

This variant of the ZenFone 2 uses a 5.5-inch IPS LCD display with a Full HD 1,920 x 1,080 pixels resolution (403 ppi). Clarity is top notch and color reproduction was accurate, although contrast could probably be a bit better.

On the rear of the phone, you'll find a 13-megapixel, f/2.0, PixelMaster camera module with dual-color LED flash. On the front, there's a 5-megapixel, f/2.0 front-facing camera. ASUS' proprietary PixelMaster technology combines hardware, software

and optical design to deliver superior images in a number of tricky scenarios. It includes digital image stabilization as well as a very useful Low Light Mode, which uses oversampling techniques to increase light sensitivity in poorly lit conditions.



Comfortable ergonomic build. 5.5-inch Full HD display.



Quite thick and heavy.



AT A GLANCE

OS

Android 5.0 Lollipop with Zen UI

Processor

64-bit Intel Atom Z3560 quad-core 1.8GHz

Display

5.5-inch IPS LCD, 1,920 x 1,080 resolution (403 ppi)

Dimensions

152.5 x 77.2 x 10.9 mm

Weight

170g

Price

RM899



The ZenFone 2's volume rocker is positioned on the rear.



The rear of the ZenFone 2 has a brushed metallic finish.

LENOVO A7000

The most affordable phone in our shootout, the Lenovo A7000, costs just RM699, making it a full RM50 cheaper than the next cheapest, the Xiaomi Mi 4i.

Design-wise, the A7000 is about as safe as they come. The phone has a utilitarian rectangular design with slightly rounded rear edges for a more comfortable grip.

The entire phone is made of plastic, but feels relatively sturdy. One complaint we have is that the matte finish looks a bit cheap and tends to pick up grease and oily fingerprints quite easily. The right edge of the phone houses the volume rocker and the power button, which thankfully are made of metal and have a etched circular pattern on them for a bit of tactile feedback. The top edge houses both the headphone jack and Micro-USB port, leaving the left and bottom edges port-free.

The rear cover is removable and hides two Micro-SIM card slots and a microSD card slot. Unfortunately the phone only has 8GB internal storage, and the microSD slot only supports cards up to a measly 32GB.

The A7000 has a 5.5-inch IPS LCD display with a HD 1,280 x 720 pixels resolution (267 ppi), giving it the lowest pixel density of any of our phones. Clarity on the phone isn't too bad, but it is noticeably worse than the Full HD display on our

other 5.5-inch device, the ASUS ZenFone 2. Color reproduction is decent if a little warm, and viewing angles and brightness are quite good overall.

One of the unique features on the A7000 is that it is one of the first phones to support Dolby's Atmos technology. This technology replicates a surround sound experience with any pair of headphones. Do note that you need to be watching Dolby Atmos certified movies or trailers for the technology to work.

On the rear of the phone, you'll find an 8-megapixel camera with a 1/4-inch Sony Exmor IMX219 sensor and a dual LED flash. On the front, there's also a 5-megapixel front-facing camera. Lenovo's default camera interface is fairly clean and easy to use but a little on the basic side.



Dolby Atmos support.



Boring design. Only supports microSD cards up to 32GB.



AT A GLANCE

OS

Android 5.0 Lollipop with Vibe UI 3.0

Processor

64-bit MediaTek MT6752m Octa-core 1.5GHz

Display

5.5-inch IPS LCD, 1,280 x 720 resolution (267 ppi)

Dimensions

152.6 x 76.2 x 8 mm

Weight

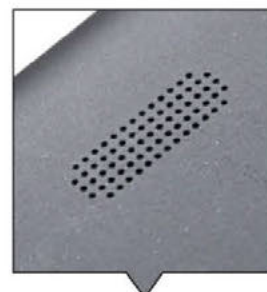
140g

Price

RM699



The most interesting design flair on the phone is its metal power and volume buttons.



The A7000 has a single speaker located on its rear.

MICROSOFT LUMIA 640 LTE

The Lumia 640 LTE is the only non-Android phone in our shootout, instead it's running on Windows Phone 8.1 OS, made up of big, colorful tiles that will come as a refreshing change to anyone that's tired of Android (or even iOS).

The Lumia 640 LTE has a one-piece polycarbonate design that bends around to meet the screen at the front. It is slightly on the thick side, measuring 8.8mm, and also a bit more angular than some of the Lumia phones we've seen in the past, but it's still very comfortable to hold.

The stiff polycarbonate feels sturdy and well-built, and you can actually swap out the rear cover if you feel like changing colors.

The headphone jack can be found at the top of the phone, while the Micro-USB port is at the bottom. The power button and volume rocker can be found on the right side, while the Micro-SIM and microSD card slots can be found hidden beneath the rear panel. You'll definitely want to make use of that microSD card slot, which supports cards up to

128GB, as the phone only comes with a mere 8GB of on-board storage.

The Lumia 640 LTE has a 5-inch IPS LCD display with a 1,280 x 720 pixels resolution (294 ppi), which isn't as good as the Full HD models in our shootout, but is still reasonably adequate. Color reproduction is fairly good with vivid colors and there's a decent level of contrast too.

Turn the phone over and you'll find an 8-megapixel rear camera which, despite its fairly low megapixel count is actually quite decent with sharp focus and good color reproduction. The same can't be said of the phone's front-facing camera, which is just 0.9-megapixels and barely usable, resulting in low-quality, grainy selfies.

If you're unfamiliar with Windows Phone OS, the homescreen is made up of a scrolling list of colorful tiles that

show live information, and can be resized and rearranged to your liking. The Lumia Denim update brings some much-needed updates like a pull-down panel showing incoming notifications and settings like the screen brightness and Wi-Fi.

+
Swappable rear covers.

—
Low resolution front camera. 32-bit processor.



AT A GLANCE

OS

Windows Phone 8.1 with Lumia Denim

Processor

32-bit Qualcomm Snapdragon 400 Quad-core 1.2GHz

Display

5-inch IPS LCD, 1,280 x 720 resolution (294 ppi)

Dimensions

141.3 x 72.2 x 8.8 mm

Weight

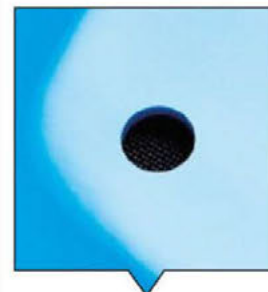
145g

Price

TBA



You can easily replace the rear cover of the Lumia 640 LTE if you feel like changing the color of your phone.



The Lumia 640 LTE has a single, small speaker located on its rear.

PICTURE MICROSOFT

OPPO MIRROR 3

The Oppo Mirror 3 is a reasonably compact 4.7-inch phone with a slightly rounded rear profile. However, unlike the ASUS ZenFone 2, which also has a curvy rear, the phone isn't as comfortable to hold due to a prominent ridge along its frame that tends to bite into your palm. Additionally, while the Mirror 3 has the smallest display size in our shootout, it's actually rather thick at 8.9mm.

The phone is made entirely of plastic but feels relatively sturdy. The back of the phone has an interesting micro-dot pattern that looks to be textured, but as it's covered in a thick layer of gloss, it feels smooth to touch. Remove the back cover and you'll find two Micro-SIM card slots and a microSD card slot, which supports cards up to 128GB. The phone only has 8GB internal storage, so you'll definitely need a microSD card.

The Mirror 3 has a 4.7-inch IPS LCD display with a 1,280 x 720 pixels resolution (312 ppi). Clarity is reasonably good, although it doesn't match up to the Full HD models in our shootout. The display is

quite bright with good viewing angles and decent color reproduction.

On the back of the phone, you'll find an 8-megapixel camera with a backside-illuminated 1/3.2-inch Sony Exmor IMX179 sensor with an

f/2.0 aperture, 5-element lens and a blue light filter, which is designed to reduce the effects of ultraviolet light. On the front of the phone, you'll find a 5-megapixel camera for selfies. Oppo's camera app includes a multitude of shooting modes including HDR, panorama, expert mode, double exposure and even a GIF creation mode. The camera also performs especially well in low-light situations, thank to its Sony IMX179 sensor.

One feature of the Mirror 3 that's worth mentioning is its Fast Charge capabilities, something that we often see on flagship

smartphones but rarely at this price range. While the Mirror 3 has a relatively small 2,000mAh battery, it only takes about 90 minutes to fully charge the device, which is much faster than anything else here.

+
**Fast Charge.
Good low-
light camera
performance.**

-
**Android 4.4.4.
Only 1GB RAM.**



AT A GLANCE

OS

Android 4.4.4 KitKat with Color OS 2.0

Processor

64-bit Qualcomm Snapdragon 410 Quad-core 1.2GHz

Display

4.7-inch IPS LCD, 1,280 x 720 resolution (312 ppi)

Dimensions

137.7 x 68.8 x 8.9 mm

Weight

130g

Price

RM898



The Mirror 3 has an IR blaster on top for controlling your TV.



The rear of the Mirror 3 has an interesting micro-dot pattern.

PHICOMM P660

Phicomm is a Chinese manufacturer and this here is the P660, a minimalist slab style smartphone that looks quite similar to Sony's Xperia Z flagship phones. The phone has a unibody design with distinct, sharp corners and is made from plastic with brushed magnesium alloy side panels, making it the only phone in our shootout to utilize metal in its build, a very nice premium touch for a phone in this price range.

The 5-inch phone is the thinnest in our shootout, measuring just 7.3mm, and it's also remarkably light, weighing a mere 110g. A metal power button with an unusual oblong shape and an attractive bronze trim on its edge can be found on the right side of the phone, and you'll also find a Micro-SIM slot, as well as a nano SIM slot that doubles up as a microSD card slot, here. The volume rocker is located on the left-edge, while the headphone jack can be found on top, and the Micro-USB port, on the bottom.

The rear of the phone has a soft-touch matte finish which is pretty good at resisting

fingerprints and scratches. Due to its angular edges and lack of curves, the P660 isn't the most comfortable phone to hold, but it does provide you with a secure grip.

The P660 has a 5-inch Full HD IPS LCD display with a 1,920 x 1,080 pixels resolution (441ppi). On paper, this gives it the same specs as Xiaomi's Mi 4i, however, in our opinion, Xiaomi has the better display. Overall clarity between the two displays is about the same, but the Mi 4i's display is noticeably brighter and also boasts more accurate color reproduction. We found the P660 display to be slightly on the warm side, although its contrast was quite good and viewing angles were decent too.

The rear of the P660 sports a 13-megapixel camera with a 1/3.06-inch Sony Exmor RS IMX214 CMOS sensor, f/2.0 aperture lens and LED flash. On the front, you'll find a 5-megapixel camera with an 84-degree wide angle view, which is great for group selfies.

+
Magnesium alloy side panels. Thin. Light.

—
Android 4.4.4.



AT A GLANCE

OS

Android 4.4.4 KitKat with Expect UI 5

Processor

64-bit Qualcomm Snapdragon 615 octa-core (Quad-core 1.5GHz & Quad-core 1.0GHz)

Display

5-inch IPS LCD, 1,920 x 1,080 resolution (441 ppi)

Dimensions

139.5 x 69 x 7.3 mm

Weight

110g

Price

TBA



The P660 has brushed magnesium alloy side panels.



The P660 has dual SIM card slots.

XIAOMI MI 4I

The Xiaomi Mi 4i was launched earlier this year in India (the 'i' stands for India) as a cheaper alternative to Xiaomi's Mi 4. Compared to the Mi 4, the Mi 4i uses Qualcomm's Snapdragon 615 processor instead of the Snapdragon 801 and it only has 2GB RAM instead of 3GB.

The Mi 4i has a minimalist rectangular body with rounded edges and a smooth soft-touch matte finish. Constructed from a single piece of polycarbonate, the Mi 4i feels light and well-made, and somewhat similar to Microsoft's Lumia range. At 7.8mm thin, the phone is fairly slim, and its rounded edges let the Mi 4i sit comfortably in hand.

A SIM card tray with two Micro-SIM slots can be found on the left of the phone. The headphone jack is found at the top of the phone, while the Micro-USB port sits at the bottom of the device. Both the volume rocker and power button can be found on the right side.

The Mi 4i sports a 5-inch IPS LCD display with a Full HD 1,920 x 1,080 pixels resolution (441ppi). Clarity is top notch and both text and pictures look

crisp and clean. Color reproduction is also excellent, with the Mi 4i's display capable of reproducing up to 95 percent of colors found in the NTSC palette, which puts it on par with a flagship device.

+
Sunlight Display
increases
visibility under
bright light.
95 percent
NTSC color
reproduction.

—
No expandable
storage.

The Mi 4i's display is also equipped with useful new technology called Sunlight Display, which uses hardware-level algorithms to increase visibility under bright sunlight by automatically boosting contrast and midtones.

Flip the phone around and you'll find a 13-megapixel camera with a 1/3.06-inch Sony Exmor RS IMX214 CMOS sensor, five-element lens construction, f/2.0 aperture, and a Philips dual-LED warm/cold flash. The front of the phone has a 5-megapixel camera.

Like the Oppo Mirror 3, the Mi 4i supports Quick Charging, and can go from flat to full in about three hours.

Something worth noting about the Mi 4i that could end up being a deal breaker for many is that it's the only phone in our shootout without expandable storage, so you'll have to make do with its small 16GB internal storage.

AT A GLANCE

OS

Android 5.0 Lollipop with MIUI 6

Processor

64-bit Qualcomm Snapdragon 615 octa-core (Quad-core 1.7GHz & Quad-core 1.1GHz)

Display

5-inch IPS LCD, 1,920 x 1,080 resolution (441 ppi)

Dimensions

138.1 x 69.6 x 7.8 mm

Weight

130g

Price

RM749



The Mi 4i's rear camera has a Philips dual-LED flash.



The Mi 4i has a speaker grille located on the rear of the phone.

ZTE BLADE S6

The ZTE Blade S6 looks just like Apple's iPhone 6. It shares a very similar shape, with the same rounded edge design, and similar looking buttons, and it even has a faux aluminum rear, which is actually plastic, but does look fairly convincing from a few feet away. There's even a 'designed by ZTE in California, assembled in China' print on the rear, in the same place as Apple's famous wording. The only thing missing are the antenna bands (plastic phones don't need them). No points for originality, but since the Blade S6 basically looks like an iPhone, naturally it's quite attractive, especially for a phone in this price range. In hand, the plastic feels a bit cheap, and the phone is much lighter than an iPhone 6, but it's comfortable to hold overall.

Button placement on the S6 isn't exactly the same as Apple's, with both the power button and volume rocker located on the right side. On the left, you'll find a microSD card slot and a SIM card tray that holds dual 4G nano SIMs. The audio jack

can be found at the top of the phone, while the Micro-USB port is found at the bottom.

The Blade S6 sports a 5-inch 1,280 x 720 HD display (293 ppi). Clarity isn't as good as the Full HD models in our shootout, but viewing angles are fairly decent and the display does boast fairly bright and vivid colors. At the bottom of the screen, the S6 has a small circle indicating the home button. It looks a bit like Apple's Touch ID button, but it's not, it's just a regular capacitive home button.

On the back of the S6, you'll find a 13-megapixel 1/3.06-inch Sony Exmor RS IMX214 sensor, which is the same camera sensor used by Xiaomi and Phicomm. ZTE has also added a few software optimizations to get the most out of the camera, including an 'Expert' mode that lets you manually adjust metering, ISO levels and focal points. The front camera on the Blade S6 is a 5MP shooter with a wide-angle 80 degree lens, making it ideal for group selfies.

 Looks just like an iPhone.

 Looks just like an iPhone.



AT A GLANCE

OS

Android 5.0 Lollipop with MiFavor 3.0

Processor

64-bit Qualcomm Snapdragon 615 octa-core (Quad-core 1.5GHz & Quad-core 1.0GHz)

Display

5-inch IPS LCD, 1,280 x 720 resolution (294 ppi)

Dimensions

144 x 70.7 x 7.7 mm

Weight

154g

Price

RM959



"Designed in California by ZTE."



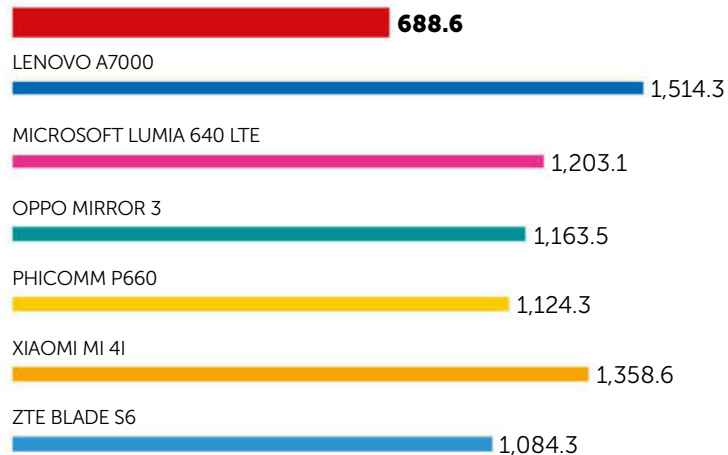
The Blade S6 has Dual SIM card slots.

SunSpider JavaScript

(lower is better)

SunSpider JavaScript measures the browsing performance of a device when processing JavaScript. It not only takes into consideration the underlying hardware performance, but also assesses how optimized a particular platform is at delivering a high-speed web browsing experience. The ASUS ZenFone 2 was the clear winner in this benchmark, with a blistering speed of 688.8ms, which surpasses even flagship smartphones.

ASUS ZENFONE 2



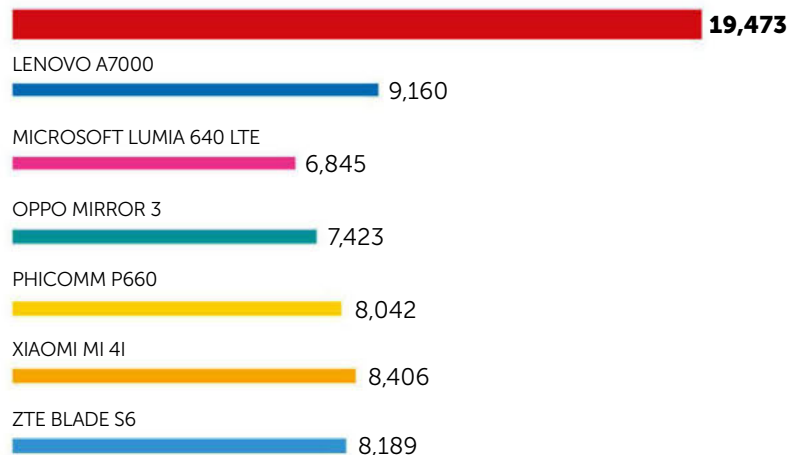
3DMark 2013 – Ice Storm Unlimited

(higher is better)

3DMark 2013 - Ice Storm is designed to test the gaming capabilities of a device, putting its GPU through a rigorous OpenGL ES 2.0 benchmark test that uses fixed off-screen rendering with high quality textures and post-processing effects. The Unlimited version of the benchmark disables V-sync, display scaling and other OS factors, making it ideal for chipset comparison.

The ZenFone 2's PowerVR G6430 GPU was surprisingly dominant, easily outscoring the rest of the field. There wasn't much to separate the rest of our smartphones, although it looks like the Lumia 640 and Mirror 3 were held back by having just 1GB RAM.

ASUS ZENFONE 2



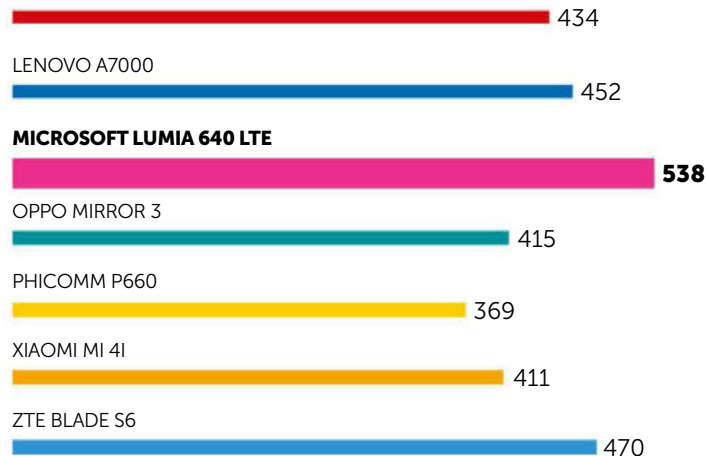
Battery Life

(in minutes)

Our standard battery test for mobile phones involves looping a 800 x 480-pixel video with screen brightness and volume at 100 percent, Wi-Fi and Bluetooth connectivity turned on, and constant data streaming through email and Twitter.

As expected, the phones with lower resolutions did better in our battery life benchmark, and the Lumia 640's combination of a reasonably small screen, HD resolution display, and a relatively underpowered processor made it the clear winner here.

ASUS ZENFONE 6





MODEL	ASUS ZENFONE 2	LENOVO A7000	MICROSOFT LUMIA 640 LTE
OS	Android 5.0 Lollipop with Zen UI	Android 5.0 Lollipop with Vibe UI 3.0	Windows Phone 8.1 with Lumia Denim
DISPLAY	5.5-inch IPS LCD	5.5-inch IPS LCD	5-inch IPS LCD
RESOLUTION	1,920 x 1,080 (403 ppi)	1,280 x 720 (267 ppi)	1,280 x 720 (294 ppi)
PROCESSOR	64-bit Intel Atom Z3560 Quad-core 1.8GHz	64-bit MediaTek MT6752m Octa-core 1.5GHz	32-bit Qualcomm Snapdragon 400 Quad-core 1.2GHz
RAM	2GB	2GB	1GB
REAR CAMERA	13MP	8MP	8MP
FRONT CAMERA	5MP	5MP	0.9MP
INTERNAL STORAGE	32GB	8GB	8GB
EXPANDABLE STORAGE	64GB	32GB	128GB
CONNECTIVITY	4G LTE, Wi-Fi 802.11 a/b/g/n/ac, Wi-Fi Direct, Bluetooth v4.0, A2DP, EDR	4G LTE, Wi-Fi 802.11 b/g/n, Bluetooth v4.0, A2DP	4G LTE, Wi-Fi 802.11 b/g/n, DLNA, Bluetooth v4.0, A2DP
BATTERY	3,000mAh	2,900mAh	2,500mAh
DIMENSIONS	152.5 x 77.2 x 10.9 mm	152.6 x 76.2 x 8 mm	141.3 x 72.2 x 8.8 mm
WEIGHT	170g	140g	145g
PRICE	RM899	RM699	TBA



OPPO MIRROR 3

Android 4.4.4 KitKat with
Color OS 2.0

4.7-inch IPS LCD

1,280 x 720 (312 ppi)

64-bit Qualcomm
Snapdragon 410
Quad-core 1.2GHz

1GB

8MP

5MP

8GB

128GB

4G LTE, Wi-Fi 802.11 b/g/n,
Bluetooth v4.0

2,000mAh

137.7 x 68.8 x 8.9 mm

130g

RM898

PHICOMM P660

Android 4.4.4 KitKat with
Expect UI 5

5-inch IPS LCD

1,920 x 1,080 (441 ppi)

64-bit Qualcomm
Snapdragon 615 octa-core
(Quad-core 1.5GHz &
Quad-core 1.0GHz)

2GB

13MP

5MP

32GB

64GB

4G LTE, Wi-Fi 802.11 b/g/n,
Wi-Fi Direct, Bluetooth v4.0

2,300mAh

139.5 x 69 x 7.3 mm

110g

TBA

XIAOMI MI 4I

Android 5.0 Lollipop with
MIUI 6

5-inch IPS LCD

1,920 x 1,080 (441 ppi)

64-bit Qualcomm
Snapdragon 615 octa-core
(Quad-core 1.7GHz &
Quad-core 1.1GHz)

2GB

13MP

5MP

16GB

None

4G LTE, Wi-Fi 802.11 a/b/g/n/ac,
4G LTE, dual-band, Wi-Fi Direct,
Bluetooth v4.1, A2DP

3,120mAh

138.1 x 69.6 x 7.8 mm

130g

RM749

ZTE BLADE S6

Android 5.0 Lollipop with
MiFavor 3.0

5-inch IPS LCD

1,280 x 720 (294 ppi)

64-bit Qualcomm
Snapdragon 615 octa-core
(Quad-core 1.5GHz &
Quad-core 1.0GHz)

2GB

13MP

5MP

16GB

64GB

4G LTE, Wi-Fi 802.11 a/b/g/n/ac,
Wi-Fi Direct, Bluetooth v4.0,
A2DP

2,400mAh

144 x 70.7 x 7.7 mm

154g

RM959

AND THE BEST MAINSTREAM SMARTPHONE IS



ASUS ZENFONE 2 ZE551ML 2GB RAM

Our Best Performance award goes to the ASUS Zenfone 2, not only for its overall excellent benchmark scores, but also its top-notch Full HD display, and great rear and front camera. We also liked its ergonomic curved rear design, rear volume buttons and quick launch features. If you're in the market for something a little more powerful, you can opt for the RM1,299 4GB Zenfone 2, which also has a slightly faster processor.

XIAOMI MI 4I

Our Best Value award came down to two competitors, the Xiaomi Mi 4i and the Phicomm P660. Both phones boast Full HD 5-inch displays and very similar camera modules. The P660 boasts a more premium build with a sleeker, thinner and lighter design that includes magnesium alloy side panels, while the Mi 4i is priced lower, has a better overall display, a larger battery, and a faster processor. In the end, we felt that Xiaomi's pros outweigh Phicomm's. Having said that, the Mi 4i comes with a very big caveat of only having 16GB internal storage and no expandable storage. If you need more storage, go for the Phicomm P660.

AT A GLANCE

Video Resolution

Up to 1,280 x 720

Video Format

H.264

Imaging

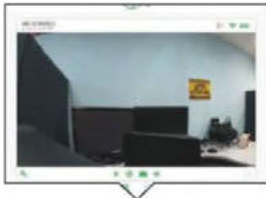
Full Color

Motion Detection

Email Alerts, Push Notifications

Price

RM1,999



The web-based UI does away with superfluous options and settings, leaving a concise interface.

CONCLUSION

The freedom from wires makes Arlo by Netgear an incredibly versatile HD security camera solution.

SPECIFICATIONS

Night Vision 850nm LEDs, illuminate up to 25 feet // **Battery** 4x Lithium CR123 (per camera) // **Battery Life** 4–6 months // **Field of view** 110-degrees // **Dimensions** 71.1 x 40.6 x 63.5 mm (camera), 215.9 x 57.1 x 165.1 mm (base station) // **Weight** 113g (camera), 113g (base station) // **Warranty** 2-years // **Contact** Kaira Technologies (M) Sdn Bhd // **Telephone** (03) 7955 3669 // **URL** www.netgear.com



FREEDOM OF SECURITY

Arlo by Netgear

Arlo by Netgear is a HD security camera that claims to be 100-percent wire-free. Finally, a security camera that can be installed anywhere without the need of a power plug nearby. But, is the Arlo truly free from any tethers?

The Arlo Security System kit that we received consists of two Arlo cameras and a base station – a central hub on which the cameras are connected to. Also in the box are some wall mounts on which the cameras can be attached to magnetically.

We were pleasantly surprised by the size of the Arlo HD cameras. They're not overly big or small, about the size of your palm. The HD camera is also very stealthy, with no ring array of IR LEDs or a stark white faceplate. It also doesn't have a blinking LED that would give its position away.

With the design, we can see how the Arlo is harder to spot, harder to avoid, and harder to tamper with if it is installed in a hidden location. This also means that the Arlo can be installed

at eye level, capturing faces of anyone who enters its field of view, discreetly.

Setting up the cameras was a very simple process. We dare say it was one of the easiest we have ever tested. Just ensure that your PC or mobile device is connected to the same network as the base station for the initial setup. After that, you can gain access from any PC or mobile device using a web-based interface, and your login credentials.

The Arlo is capable of recording video at 720p resolution, has a built-in motion detector and is capable of night vision, which is impressive despite being wire-free. As an added bonus, the camera is weatherproof and is perfect for securing areas outside the house as well.

Powering each camera are four CR123A batteries. Battery life of the Arlo HD camera varies on how you set it up and how far it is from the hub. Nevertheless, a CR123A battery costs approximately RM25,

which means you will need to spend around RM100 per camera each time the batteries run low.

Also, the Arlo Security System requires a subscription. With the basic free plan, you can connect up to five cameras and record up to 1GB of video on Arlo's cloud service. At the time of writing, there were no other subscription plans available, so we couldn't comment on the pricing.

by Azizul Rahman Ismail

TESTED & RATED

8.5_{/10}

HWM

MALAYSIA

Available at

PLAZA LOW YAT

THE BEST YET

DJI Phantom 3

Despite its appearance, the DJI Phantom 3 is no toy. It hails from a lineage of drones that define the standard in the industry. Amongst its peers, there is none quite like it, especially considering its price tag, which is relatively easy on the pocket.

At a glance, the Phantom 3 looks similar to its older siblings; relatively small, portable, and bore a passing resemblance to the headcrab from the Half-Life series. Nevertheless, this latest iteration is capable of tricks that its predecessors can only dream of attempting.

For the time being, DJI eschewed support for third-party action cameras in favor of its own proprietary camera and gimbal setup. It is a vast improvement over the first and second-generation Phantom. The result is smoother panning and really stable video footage, a great feat considering how light the drone is.

There are two variants of the Phantom 3: Professional and Advanced. The difference between them, despite the gold or silver bands that accent each drone, is the camera.

The former comes with a 4K-capable camera, while the latter is capable of recording in 1080p resolution.

Another major improvement DJI implemented in its new drone is the remote control system. Gone is the proprietary display tablet, which is replaced with compatibility for Android or iOS device. This greatly expands the versatility of the drone.

It is also easier than ever to fly. Various automatic modes ensure that you get the shot that you are looking for, but it is not foolproof. There is a learning curve and some of the more creative shots will require practice and planning.

The Phantom 3 is also more stable in flight. Its internal controls compensate for strong winds automatically, ensuring that it hovers exactly where it is meant to be. We tested this by flying the drone low and nudging it while it's hovering. The Phantom 3 naturally swings a little but promptly hovers in place.

The best feature of the Phantom 3 is its ability to fly indoors. Its Vision Positioning technology, which it shares

with the high-end Inspire 1, uses visual and ultrasonic technology to detect its position relative to its environment. This enables it to fly in places where there is no GPS.

Despite its small stature and relative affordability, the DJI Phantom 3 is a powerful tool for any professional or aspiring aerial videographer, and a good choice for anyone who is looking for their first flight.

by Azizul Rahman Ismail

TESTED & RATED

9.0/10

HWM
MALAYSIA

Available at

PLAZA LOW YAT

AT A GLANCE

Camera Sensor

1/2.3-inch Sony Exmor, Effective Pixels: 12.4MP

Lens

FOV 94° 20 mm f/2.8, Focus at ∞

ISO Range

ISO 100–3,200 (video), ISO 100–1,600 (photo)

Video Model

HD, FHD, UHD (Professional only)

Price

RM4,200 (Advanced), RM5,200 (Professional)



By using a proprietary camera, DJI improved on the performance of its Phantom drones.

CONCLUSION

Look no further if you are looking for your first drone, or looking to upgrade to the best quadcopter in its price range.

SPECIFICATIONS

Max Speed 16 m/sec (ATTI mode, no wind) // **Max Altitude Above Sea Level** 6,000m // **Range** 2km // **Hover Accuracy** Vertical: +/- 0.1 m (when Vision Positioning is active) or +/- 0.5 m, Horizontal: +/- 1.5 m // **Diagonal Size (Including Propellers)** 590 mm // **Weight** 1.28 kg // **Warranty** 1-year // **Contact** March Equipment Store // **Telephone** (03) 8080 0369 // **URL** www.marchequipmentstore.com



TAP FOR
VIDEO



SIMPLE, EFFECTIVE SURROUND SOUND

Philips HTD5550

For a majority of people, simple and effective are the keywords when it comes to purchasing a new home theater system. The Philips HTD5550 is exactly that – a straightforward 5.1 home theater system that promises great sound in a simple package.

As mentioned above, the HTD5550 is a home theater system that does what it's supposed to do effectively, and that is to output surround sound. To that effect, it can be seen as a barebone product that's designed to play DVDs, which let's face it, very few people do these days. However, upon closer inspection, you'll notice that there's more to the HTD5550.

For starters, it has a USB slot that lets you connect a USB flash drive and play any MP3 tracks in it. Apart from that, there's also a karaoke function, though this will only turn on when it reads a compatible CD in the drive. If you prefer to go wireless, there's an integrated Bluetooth module inside the

device, and as expected, once paired with a smartphone or tablet, will let you wirelessly stream audio. Of course, there's an AUX port and an optical-in port. If you're a fan of uncompressed audio though, it's important to note that this device does not support the playback of FLAC files. Neither does it support MKV or MP4 files.

Needless to mention, the HTD5550 does have an HDMI port that lets it output content to a TV. The good news is that this HDMI port supports Audio Return Channel (ARC), which allows the HTD5550 to mirror any sound from a TV that supports ARC as well. If you do have a TV with ARC support, you'll be able to output a lot more through the HTD5550.

To test this system, we first played a number of MP3 tracks using a USB flash drive, including Ed Sheeran's 'Thinking Out Loud'. The audio quality is definitely good, with plenty of clarity in the highs and mids, and a healthy dose of bass. We

then played the same track via Bluetooth and found that there was a minor loss in fidelity, which is expected because of compression issues. The difference though, is negligible.

We then used a notebook to play a number of FLAC files via the AUX port and found that the audio quality does improve a good deal. To get the best audio quality out of this system though, you'll want to use a high-resolution audio CD.

by Bryan Chan

TESTED & RATED

8.0_{/10}

HWM
MALAYSIA

Available at

PLAZA LOW YAT

AT A GLANCE

Type

5.1 Home Theater System

Audio Technology

Dolby Digital 5.1

Equalizer Settings

5x Preloaded Profiles

Total RMS

1,000W

Price

RM859



The satellites feature a bass-reflex system, which adds to the overall bass.

CONCLUSION

The HTD5550 is a no-frills home theater system that's easy to set up, and has decent audio quality.

SPECIFICATIONS

Equalizer Settings Movie, Music, Original, News, Gaming // **Audio Formats** MP3, WMA // **Video Formats** AVI, DivX, MPEG/MPG // **Picture Formats** JPEG, BMP, GIF, TIFF // **Connectivity** 1x USB, 1x Mic, 1x 3.5mm audio, 1x Optical-in, 1x HDMI-out (ARC), 1x Analog AUX, Composite video-out // **Warranty** 1-year // **Contact** Gibson Innovations // **Telephone** 1 800 880 180 // **URL** www.philips.com.my

A SOUND PROPOSITION

AudioBox K800

When it comes to affordable multimedia speakers, nobody does it better than AudioBox. Just take a look at the K800 2.1-channel speaker system as an example – it bears a very palatable price tag of just RM159. But as with most things that appear too good to be true, we can't help ourselves but wonder: "What's the catch?"

Before we begin scrutinizing the K800's audio quality, let's first take a look at its design. The K800 adopts the looks of a conventional bookshelf speaker, and features a body that is made out of wood which, in theory, should play a pivotal role at improving the speaker's audio quality. The facade of the K800's subwoofer plays host to an array of knobs that controls the bass, treble and volume levels, as well as two microphone ports that you can use to channel the Elvis Presley in you.

But beware; its glossy, piano-black finish makes it very prone to becoming a magnet for fingerprints and dust particles. Thankfully, the former of the two can be alleviated by using the remote control that comes provided with the K800, instead of fiddling about with the physical audio knobs. Another thing worth keeping in mind is the fact that the K800's satellite speakers do not have a grille to protect its fragile diaphragm from accidental damage.

Now that we've covered the K800's aesthetics, it's time for us to find out whether it has a sound signature that's as good as its asking price. To do so, we had it play a selection of songs from a variety of musical genres. First on the list was Eric Clapton's classic soft-rock track, 'Wonderful Tonight'. The melodious tunes of the electric guitar and the hi-hats of the drum were well-pronounced

and crisp, while the track's bass lines were distinct enough to complement, and not overshadow, the lighter sounding instruments. We were hard-pressed to find anything that was out of place with the K800's reproduction of the track.

Next up, we played Kenny G's 'Jasmine Flower' with the volume cranked up high – just to find out whether the K800 would crack from the sounds of Kenny G's saxophone hitting the screechiest of notes. To our delight, it didn't. The speakers managed to belt out all the high-pitched squeals of the saxophone without breaking a sweat, while also ensuring that the mellow background melody that underpins the entire song is interpreted well.

We wrapped our test of the K800 with a hard-hitting, drum and bass track courtesy of Pendulum's 'Set Me on Fire'. If you consider yourself a basshead, you'll be glad to know that the K800 didn't exhibit any forms of distortion while playing the track at maximum volume, even with

the bass-control knob turned up all the way. The thumps of bass bellowed out by the K800 were punchy and substantial, and in no way did they sound muddy or muffled.

by Peter Chu

TESTED & RATED

8.5_{/10}

HWM
MALAYSIA

Available at

PLAZA LOW YAT



AT A GLANCE

Type
2.1

Connection
USB, SD card, AUX-in (3.5mm), FM radio

Total Power Output (RMS)
Treble: 2x 8W, Bass: 1x 24W

Remote Control
Yes

Price
RM159



The SD/MMC and USB port located on the front of the K800's subwoofer is easily accessible.

CONCLUSION

At RM159, it would be inconsiderate of you to expect the AudioBox K800 to perform better than it already does.

SPECIFICATIONS

Woofer 1x 5-inch, 5 ohm // **Satellite Drivers** 2x 3-inch, 4 ohm // **Frequency Response** Satellite: 90Hz – 18kHz, Subwoofer: 55Hz – 160Hz // **Power Supply** 220-240V ~ 50-60Hz // **Warranty** 1-year // **Contact** Leapfrog Distribution Sdn Bhd // **Telephone** (03) 7803 6703 // **URL** leapfroglobal.com

TREKKING WITH MUSIC

TDK TREK Flex



By now, it's highly likely that you've been bitten by the fitness bug, and if jungle trekking is your kind of poison, then you'll want to take a look at the TDK TREK Flex. A portable and robust speaker system, the TREK Flex is definitely something you'll want to take along with you on your next hike.

Featuring Bluetooth support, the TREK Flex connects wirelessly to your mobile device. For even more convenience, the TREK Flex also has NFC connectivity, which allows you to pair devices (that support NFC) by just tapping the two together. Once paired, you'll be able to wirelessly stream your audio, and thanks to A2DP Bluetooth technology, you're able to use the TREK Flex as a hands-free device.

Naturally, when you're out and about in the great outdoors, you'll want devices that are durable and whose circuitry won't go bonkers when exposed to a little rain. That's why the TREK Flex is IP65 and IK07 certified, which means that it's weatherproof and can definitely soak up a fair amount of bumps.

In terms of design, the TREK Flex looks pretty much like a canister. Hidden under a rubber flap on one side is a 3.5mm auxiliary input, a Micro-USB port and the On/Off button. On another side is where you'll find all the controls you'd

need to power on the device, increase or decrease the volume, pair it via Bluetooth and finally, accept calls as well as play or pause your music.

When it comes to audio quality, the TREK Flex boasts two full-range speakers and a passive radiator. This translates to a good amount of clarity and respectable bass. We tested this device by playing a couple of our favorite songs via Bluetooth and the 3.5mm auxiliary connection, to find out if there were any differences.

We started by playing 'The Eye of the Tiger' by Survivor, and are happy to report that the song sounded just as good on wireless as it was via auxiliary. There's a good amount of bass and the vocals were well defined. Next, we played an acoustic rendition of 'Seven Nation Army', and found that the bass was just as good, though the guitars sounded a tad muffled, something that was easily remedied by increasing the volume level.

As mentioned, this device can also function as a hands-free speaker. We tried it out by accepting a couple of calls while connected to the TREK Flex, and once again found that there's little to complain about. Voice is projected clearly and loudly, allowing for conference calls, as well as great hands-free functionality, if you've got your hands full.

By *Bryan Chan*

TESTED & RATED

8.5_{/10}

HWM
MALAYSIA

Available at

PLAZA LOW YAT

AT A GLANCE

Type

Bluetooth Wireless Speaker

Standby Time

Up to 8 hours

Connectivity

3.5mm, Bluetooth

Certification

IP65 (weatherproof), IK07 (shockproof)

Price

RM399



You'll find the 3.5mm auxiliary input, Micro-USB port and On/Off button underneath a rubber flap.

CONCLUSION

The TDK TREK Flex is tough, weatherproof, with good audio quality. There's little not to like about this portable speaker system.

SPECIFICATIONS

Total RMS 8W // **Drivers** 2x 40mm neodymium, full-range // **Dimensions** 780 x 270 x 290mm (W x H x D) // **Warranty** 1-year // **Contact** Digital Paper Sdn Bhd // **Telephone** (03) 5569 2002 // **URL** www.tdkperformance.com



MILITARIZED SPEAKERS

Armageddon Panzer III Elefant

Known for its military-inspired products, Armageddon has really made its presence felt among the gaming community. For many, Armageddon products are a great compromise to more established brands like Razer and SteelSeries. Their latest endeavour comes in the form of the Panzer III Elefant, a 2.1 speaker system that just so happens to be the subject of this review.

Right off the bat, one of the first things you'll notice about the Panzer III Elefant is the fact that it's once again inspired by a military vehicle. This time around, it's the Panzer. For the uninitiated, Panzer actually means 'tank' or 'armor' in German. There's no surprise then, that the Panzer III features a squarish design. Its satellite speakers have

grills that resemble caterpillar tracks, while the tweeters look like the barrel of a tank.

As for the subwoofer, it's pretty much a square box with the same design cues as the satellite speakers. There are also three knobs at the front for you to control the volume, treble and bass level. It would have been nice if there truly were barrels, but we'd reckon if Armageddon did that, they'd receive many letters or warranty claims about broken barrels.

When it comes to features, it's a rather straightforward affair with the Panzer III Elefant. The speaker cables are color coded, so you won't confuse between the positive and negative connections. In addition, there's a volume controller that connects to your audio source and the

subwoofer, which makes it easy to adjust the volume while gaming. What's somewhat unique about the Panzer III Elefant, is that it comes with a 5V USB power port at the rear, which allows you to charge any mobile devices that make use of the USB interface.

The most important thing though, is how the Panzer III Elefant sounds. We first played some acoustic tracks, including the acoustic rendition of Sia's 'Chandelier', which was sung by Kina Grannis. In this track, Grannis' voice is clearly audible and so are the mids. However, the bass was somewhat lacking. To get a better idea, we then played Calvin Harris' 'Summer', which is rather bass heavy. Once again, vocals and mids were good, but the bass could have been better. From another point of view though, the Panzer III Elefant has a rather flat audio characteristic, which is something most audio enthusiasts would appreciate.

By Bryan Chan

AT A GLANCE

Type

2.1 speaker system

Total RMS

48W

Satellite Driver Size

2x 3-inch and 2x 1.5-inch tweeters

Subwoofer Driver Size

5.25-inch

Price

RM209.90



The Panzer III Elefant comes with a wired remote control for easy access to the volume.

CONCLUSION

The Panzer III Elefant looks different, and offers respectable performance in terms of audio reproduction.

SPECIFICATIONS

Frequency Response 130Hz-20Hz (satellite), 56Hz-150Hz (subwoofer) // **Voltage** 220V-240V // **Impedance** 4 ohms // **Warranty** 1-year // **Contact** Leapfrog Distribution Sdn Bhd // **Telephone** (03) 7803 6703 // **URL** leapfrogglobal.com/amg

TESTED & RATED

8.0_{/10}

HWM MALAYSIA

Available at

PLAZA LOW YAT

BIG IN SIZE AND POWER

Alienware 15

AT A GLANCE

Processor

Intel Core i7-4710HQ
2.5GHz

Operating System

Windows 8.1 64-bit

Memory

8GB

Storage

256GB M.2 SSD + 1TB
7,200RPM HDD

Price

Kindly refer to
www.dell.com.my



Here's where you change the default blue lights of the Alienware 15 to any color of the rainbow you fancy.

CONCLUSION

This gaming notebook is powerful, but you won't want to be moving it about often.

SPECIFICATIONS

Display 15.6-inch Full HD (1,920 x 1,080) IPS-panel anti-glare 300-nits display // **Graphics** NVIDIA GeForce GTX 980M // **I/O Ports** 1x power port, 1x LAN port, 3x USB 3.0 port, 1x USB 3.0 port with PowerShare technology, 1x Alienware Graphics Amplifier port, 1x Mini-DisplayPort, 1x HDMI 1.4, // 1x 9-in-1 card reader, 1x 3.5mm audio out, 1x 3.5mm audio in, 1x Kensington lock slot // **Battery** 92 WHr, 8-cell battery (integrated) // **Connectivity** Killer 1525 802.11ac 2x2 Wi-Fi, Bluetooth 4.1 // **Dimensions** 385.8 x 270.2 x 34 mm // **Weight** 3.207kg // **Contact** Dell Sales Malaysia Sdn Bhd // **Telephone** 1 800 88 2888 // **URL** www.dell.com.my



Despite the name, Alienware is not a brand that is alien to a gamer worth his hours. With the refresh of the Alienware 13 and the launch of the Alienware Graphics Amplifier, the Dell subsidiary is set to refresh more of its gaming notebooks to be compatible with the optional accessory. One such model is the Alienware 15.

The Alienware 15 walks a fine line between stylish and gaudy, with its near out-of-this-world design and the alien head motif. The AlienFX lighting further adds to the futuristic and advanced look, be it on the top lid, on the keyboard and glowing touchpad, the power button, the status LEDs, and the two strips beneath the speaker grilles. All these lights are customizable via the GUI that gives you 19 colors to cycle through, and set to be on all the time, to pulse or to fade between two colors. All this gives you some extent of control, allowing you to wiggle on the line between stylish and gaudy towards the direction of your preference.

However, all these look quite jarring, going together with the unfortunate bulk. By modern standards, the Alienware 15 is thick and heavy for a 15.6-inch form factor notebook, despite the inclusion of carbon fiber on its construction. But maybe all that doesn't matter as the Alienware 15 is still a gaming notebook, one that stays in place for hours on end before needing to be transported elsewhere instead of one that has to be constantly on the move with you during a busy day at work.

But what it has in physical bulk, it also has in performance muscle. While our review unit came with an Intel Core i7-4710HQ processor, Dell Malaysia has since refreshed the Alienware 15 to offer either a Core i7-4720HQ or Core i5-4210H processor. Other internal bits in the machine at our disposal remain available in the customizations list as of writing: NVIDIA GeForce GTX 980M graphics, 8GB of RAM, and 256GB M.2 SSD with 1TB 7,200RPM HDD.

Benchmarking the Alienware 15 with our usual list of software from Futuremark, the machine obtained a score of 3,561 and 4,526 in PCMark 8's Home and Creative suites, respectively, while also getting scores of 8,139 and 4,278 on 3DMark's Fire Strike and Fire Strike Extreme, respectively. While running actual games, the Alienware 15 managed an average framerate of 43 fps on Crysis 3 and 93 fps on Batman: Arkham Origins.

By Ian Chee

TESTED & RATED

8.0_{/10}

HWM
MALAYSIA

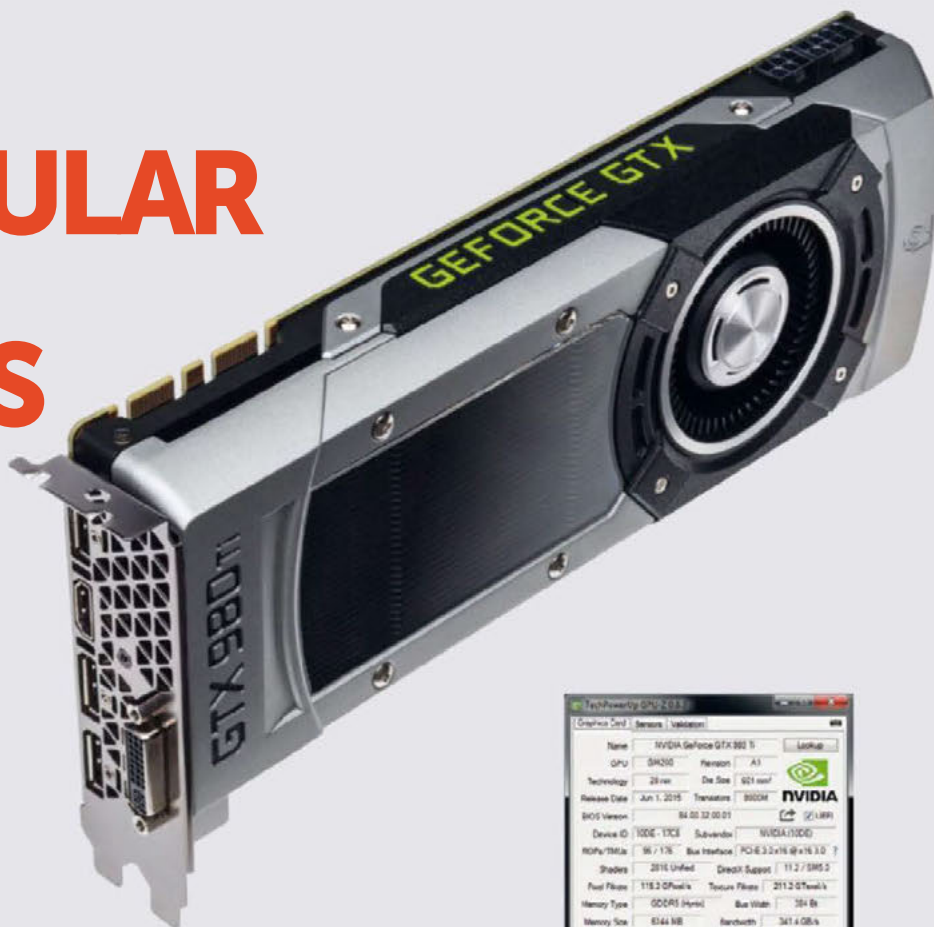
Available at

PLAZA LOW YAT

THE TI-TULAR CHILD RETURNS

We take a look at NVIDIA's new gaming-centric GeForce GTX 980 Ti.

by John Law



THE GTX 980, REDESIGNED

Back in May, we tested NVIDIA's most powerful single GPU graphics card in the GeForce lineup, the GTX TITAN X. Back then, we didn't just test out a single card, but instead installed two TITAN X cards so that we could benchmark them in a dual SLI configuration. Needless to say, the results were staggeringly and phenomenally mind-blowing.

Alas, for all its power and the games that the SLI setup could run, the card's steep price tag of RM4,500 is a core reason that many PC gamers have refrained from even considering it. However, if you're still looking for a high-end GeForce graphics card, you might want to consider the recently-released GeForce GTX 980 Ti. It's the reworked and massively improved version of the GeForce GTX 980, and for this issue, we got it in our lab for testing.

TWEAKED FOR GAMING

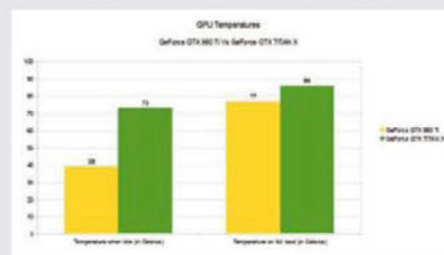
The TITAN X's GM200 GPU was essentially just a show of power, a show of force if you will, proving to the world what the card is capable of. But as far as gaming goes, there's a reason that cards like the GeForce GTX 970, GTX 980 and (more recently) the GTX 980 Ti are made.

The GTX 980 Ti is essentially a more refined, gaming-focused variant of the same GPU, and it's fitted with 6GB of memory, half that of the TITAN X. Now, before you start thinking that the reduction is in any way significant, remember that other high-end graphics cards are loaded with a bare minimum of 4GB GDDR5 memory.

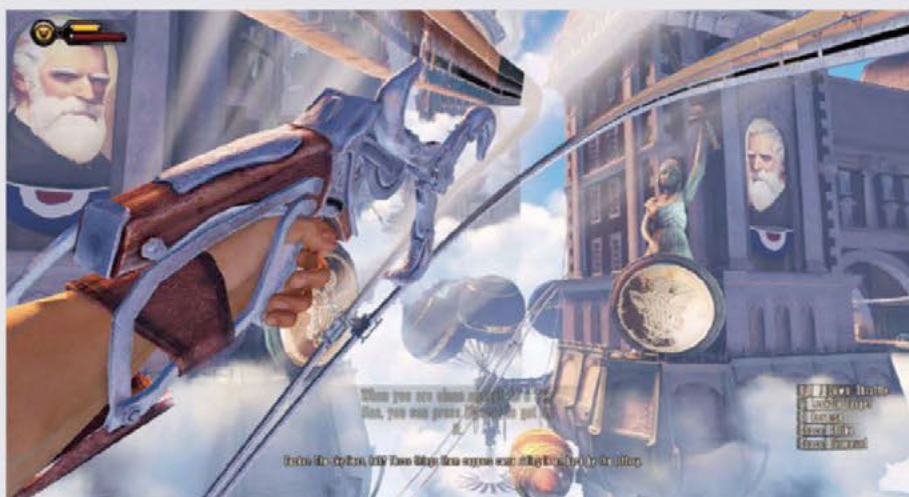
One of the many improvements that NVIDIA made to the GTX 980 Ti was on its thermal output and power draw. Compared to the way that the TITAN X drew power, the GTX 980 Ti actually draws significantly less power under a full load and when idle, as you can see in the charts on this Lab Exam.

The GTX 980 Ti is no slouch either. The card is packing 2,816 CUDA cores, and just like the TITAN X, it can perform 96 ROPS, and even has a Texture Fill Rate (TMU) of 192 cycles per second. In other words, this card still has enough power to run almost all of today's games at Ultra HD (4K) resolution seamlessly, with minimal amount of lag.

NVIDIA GeForce GTX 980 Ti	
Name	NVIDIA GeForce GTX 980 Ti
GPU	GM200
Technology	28 nm
Release Date	Jun 1, 2015
Device ID	10DE:1C8E
ROPs/TMUs	96 / 192
Shaders	2816 Unified
Pixel Fillrate	118.2 GPixel/s
Memory Type	GDDR5 (HBM)
Memory Size	6144 MB
Driver Version	352.22
GPU Clock	1080 MHz
Default Clock	1080 MHz
NVIDIA SLI	Disabled
Computing	OpenCL 2.0 / CUDA 6.5 / PhysX 8.6



Thanks to an improved thermal applications, the GTX 980 Ti runs cooler and is less power hungry.



PLAYING THE FIELD

Finally, we get to the main event of this Lab Exam: the performance of the GTX 980 Ti.

Our test rig for the GeForce GTX 980 Ti is as listed below:

- Intel Core i7-5960K Haswell-E
- MSI X99S XPOWER AC
- 4x 4GB DDR4-3200MHz Apacer Blade Memory
- Corsair RM1000 PSU
- Cooler Master Seidon 240mm Closed-Loop Water Cooler
- 1TB WD Velociraptor HDD
- 480GB Kingston HyperX Predator M.2 SSD
- Windows 7 Ultimate 64-bit

To make the most out of the card's power and to really see just how well it performs, we hooked it up to three Full HD displays, which give us a total resolution of 5,960 x 1,080 pixels.

Our synthetic benchmarks consist of the most up-to-date 3DMark and Unigine Heaven 4.0, while our real-time gaming benchmarks consisted of the following games:

- The Witcher 3: Wild Hunt
- Grand Theft Auto V (GTA V)
- Crysis 3
- BioShock Infinite
- Batman: Arkham Origins
- Hitman: Absolution
- Metal Gear Solid V: Ground Zeroes (Ground Zeroes)

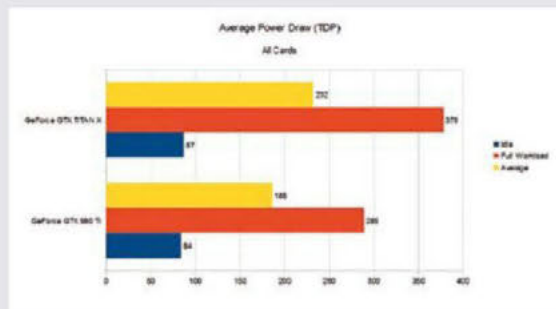
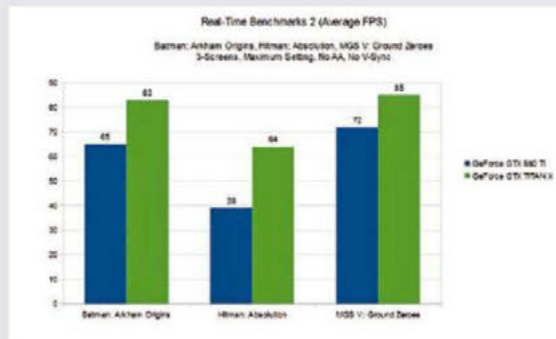
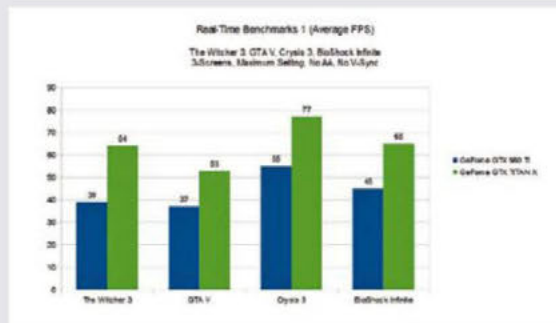
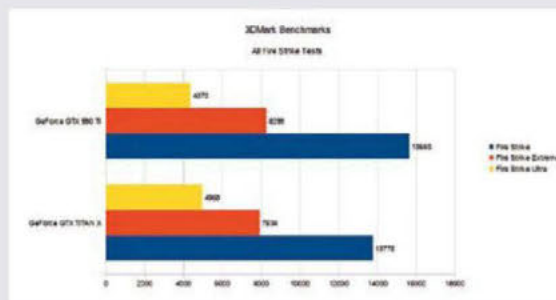
One thing to note: we run all our benchmarks with graphics cards overclocked as high as it can possibly go. For this reference-cooled GTX 980 Ti, we managed to push the GPU clock speed up by 200MHz, and its VRAM speeds by another 50MHz.

On 3DMark 2013, the GTX 980 Ti blitzed through all three of the Fire Strike benchmarks. Overclocked, the card managed to obtain scores of 15,665 on Fire Strike, 8,299 on Fire Strike Extreme, and 4,373 on Fire Strike Ultra. Compared to the scores achieved by the TITAN X, the GTX 980 Ti actually beat its more powerful sibling in the Fire Strike and Fire Strike Extreme benchmarks, but just by a margin.

Unigine Heaven was a bit of an anomaly for us, as we recorded an average frame rate of only 28 fps. Framerates dropped as low as 9 fps, but was also reaching 224 fps during certain points in the benchmark.

It goes without saying that the GTX 980 Ti blazed through the majority of the game list. In graphically-demanding titles such as GTA V and The Witcher 3: Wild Hunt, the card was able to maintain an average of 38 fps for both titles. The game surprisingly managed to maintain an average of 45 fps in BioShock Infinite, while its average frame rate for the rest of the game titles hovered between the 30 and 70 fps range.

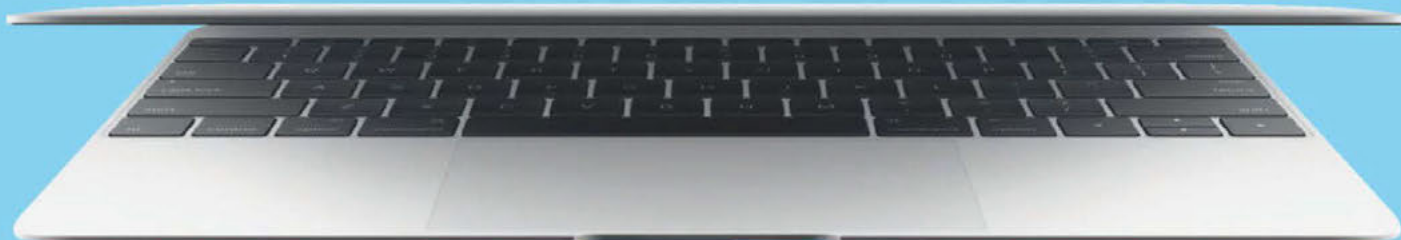
As for power consumption, the power draw of the GeForce GTX 980 Ti had an average consumption of 186W, which is significantly less than the GeForce GTX TITAN X. Even on a full load, its power consumption would only go as high as 289W, with idle consumption staying steady at 84W.



Improved thermal applications also mean that the GeForce GTX 980 Ti requires less power on a full load.

CONCLUSION

The GeForce GTX 980 Ti is a refinement of the raw power that originally debuted with the TITAN X. It outpaces its bigger brother in certain benchmarks and titles, but more importantly, its improved thermal applications means that this card definitely runs much cooler and better under heavy loads. To all the gamers: consider this card as your top-end graphics solution.



IN SEARCH OF ULTIMATE PORTABILITY

Apple MacBook

AT A GLANCE

Processor

Intel Core M-5Y31 processor (1.1GHz, 4MB L3 cache)

Memory

8GB

Graphics

Intel HD Graphics 5300

Storage

256GB

Price

RM4,769



The MacBook's logic board is Apple's tiniest yet and is 67% smaller than that of the 11-inch MacBook Air's.

Earlier this year, Apple resurrected the MacBook by introducing a new ultra-slim, ultra-light notebook. It couldn't have come at a better time as the MacBook Air is starting to become chubby by today's standards, so much so that the Air in its name is becoming a bit of a misnomer. To set things right, here is the new MacBook.

The important details first: the MacBook is just 13.2mm at its thickest point and weighs just 920g - making it one of the few notebooks in the market to tip the scales at under a kilogram. Since the MacBook was designed for utmost portability, Apple has had to re-engineer many important components to make the MacBook work.

Firstly, Intel's new low-power Core M processors power the MacBook. With a rated TDP of just 4.5W, these processors require no active cooling; hence the MacBook's chassis has no fans. Our review unit is the entry-level

model, powered by an Intel Core M-5Y31 processor that seems to have been factory overclocked to run at 1.1GHz - Intel's specifications states that this processor should instead run at just 800MHz.

To keep the MacBook compact, it has a 12-inch Retina display with an atypical resolution of 2,304 x 1,440 pixels (16:10 aspect ratio). This gives it a pixel density count of a very respectable 226 pixels per inch - comparable to both the 13 and 15-inch MacBook Pros with Retina display. The Retina display is Apple's thinnest ever and measures just 0.88mm thick. This was achieved by using a special manufacturing process that forms the glass closer to the display itself. The individual pixels have larger apertures that allow more light to pass through. This means less power required to light them, which in turns improves battery life.

To shave further millimeters off the thickness, Apple

has also re-engineered the keyboard with specially designed butterfly switches. This new switch reduces the wobbling associated with the traditional scissor mechanism and provides stable, reliable feedback for a tactile typing experience. More importantly, the new butterfly mechanism is a whopping 40 percent thinner than the previous scissor switch design.

Keyboard aside, the MacBook also gets Apple's new Force Touch trackpad. Apple's traditional trackpad was deemed too thick and so the Force Touch trackpad eschews buttons and instead uses sensors and electromagnets to generate a haptic feedback when it is being interacted. But, it does not feel like any haptic feedback we have experienced before, it actually feels like a proper click.

Due to its slimness though, Apple has had to forgo standard ports and instead use a single USB Type-C port



Because the MacBook is only 13.2mm thick at its thickest point, Apple had to make do with a slimmer USB Type-C port.

CONCLUSION

Supremely portable, the MacBook is a godsend to mobile warriors.

SPECIFICATIONS

OS OS X Yosemite // **Display** 12-inch (2,304 x 1,440) LED-backlit display, 226 ppi, IPS technology // **Wireless and Others** 802.11ac Wi-Fi, Bluetooth 4.0, Force Touch trackpad, 480p FaceTime camera, stereo speakers, dual microphones, headphone port // **Connectivity** 1x USB-C port // **Dimensions** 280.5 x 196.5 x 3.5–13.1 (W x D x H) mm // **Weight** 0.92kg // **Warranty** 1-year // **Contact** Apple Malaysia Sdn Bhd // **Telephone** 1 800 803 638 // **URL** www.apple.com/my

for everything - power, data and video. The only other port the MacBook has is a 3.5mm audio jack. The USB Type-C port is superior to the standard USB Type-A port in all respects. It's smaller, reversible, and if it supports the newer USB 3.1 standard like the MacBook does, it can also provide more data bandwidth and power. The only problem is that there are only a handful of devices that are compatible with this new connector. USB Type-A is still the de facto connector for many USB devices today and it will certainly take some time - years maybe - before the entire industry shifts towards this new smaller, more compact connector. This, coupled with the fact that the MacBook only has a single port, means that adapters and hubs are a must if you wish to connect devices to the MacBook. The alternative is to

go completely wireless.

Despite the low-power Core M processor, the MacBook runs most apps very briskly and will suffice for most users. It can run productivity apps smoothly, watch high-resolution videos flawlessly and can browse most websites without a hitch, even if one had a dozen or so tabs opened. Furthermore, the Core M processor had a huge role to play in the MacBook's fantastically long battery life. It lasted just 13 minutes shy of five hours in our battery test, which runs through a wide variety of different tasks, including video editing and gaming.

All in all, the MacBook is one of the most portable ultraportable notebooks in the market today and comes highly recommended if portability is your utmost priority. The lone USB Type-C port will take some getting

used to, but if that doesn't faze you, then there are few notebooks in the market that compete against the MacBook's combination of stunning good looks, decent performance and extreme portability.

by *Kenny Yeo*

TESTED & RATED

8.5_{/10}

HWM
MALAYSIA

Available at

PLAZA LOW YAT



A FINE CHOICE

Allfine WDB-02 AI Mini PC

AT A GLANCE

CPU

1.3GHz Intel Atom Z3735F

GPU

Intel HD Graphics (Gen 7)

Memory

2GB DDR3

OS

Windows 8.1 with Bing,
Android 4.4 KitKat

Price

RM699



The Allfine WDB-02 AI mini PC is about as thin as a USB 2.0 port. Let that sink in for a bit.

CONCLUSION

There isn't a mini PC out there that defines the mini PC form factor quite like the WDB-02 AI Mini PC.

SPECIFICATIONS

Storage 32GB eMMC // **Audio** Intel SST Audio Device // **Connectivity** Options 4x USB 2.0, 1x Micro-USB, 1x microSD card slot, 1x HDMI port, 1x LAN port // **Dimensions** 155 x 93 x 15 mm // **Weight** 121.5g // **Warranty** 1-year // **Contact** AV Future Link (KL) Sdn Bhd // **Telephone** (03) 7783 2010 // **URL** www.avf.com.my

It's interesting to see that mini PCs are becoming ever more popular over the recent years. Just last month, we reviewed the LIVA X, a mini PC that we deemed to be the ideal solution for the casual PC users amongst us. This month though, we have one that's significantly smaller in size than the aforementioned device, called the Allfine WDB-02 AI Mini PC – but does that also make it significantly better? Let's find out.

In terms of hardware, fitted inside the Allfine WDB-02's absurd, 1.5cm thin chassis is an Intel 'Bay Trail-T' SoC that consists of a 1.3GHz Intel Atom Z3735F processor with Intel HD Graphics, 2GB of RAM and 32GB of eMMC storage space. The dual OS variant lets you dual-boot Android 4.4 KitKat on top of Windows 8.1 with Bing.

If you're a casual PC user, odds are you'll be plenty satisfied with the performance of the WDB-02. We were able to open a multitude of browser tabs (about seven of them) in Google Chrome and briskly switch between them without any delay or hesitation from the mini PC. Things were equally smooth sailing while watching 1080p videos, regardless of whether they were being

streamed from YouTube, or watched locally via an external hard drive.

But here's the catch: do them all together and you'll immediately notice the WDB-02's performance begins to take a hit – browser tabs will become slow to respond, video playback choppy and jittery, while the inherently simple act of endlessly scrolling through your Facebook news feed will become very much like a chore for you and the mini PC.

At this point, we should probably point out that the WDB-02 can get fairly warm even when it's not being put through its paces, possibly due to its thin slim chassis and fanless design. In fact, it doesn't have any vents either, save for a few perforated holes beneath the unit itself which, to be honest, doesn't really help it cool down by much.

In 3DMark, the WDB-02 scored a decent 4,502 for the mobile-oriented Ice Storm Extreme benchmark, but faltered as the benchmarks progressively intensified. It scored 836 for the subsequent Cloud Gate benchmark, and 328 for the Sky Diver Benchmark. Unfortunately, the Intel HD Graphics (Gen 7) GPU just wasn't up to the task

of completing the Fire Strike benchmark, as it perpetually kept crashing during the benchmark's 'combined test' component.

Things aren't looking too good over in PCMark 8 either, as the WDB-02 only managed to generate a feeble score of 922 for the Home benchmark, 806 for the Creative benchmark, and 1,132 for the Work benchmark. All three benchmarks were completed in accelerated mode.

All in all, we wouldn't advise you to judge the WDB-02 AI based on the benchmark scores alone, because if you were to use it within its modest capabilities, you will likely be happy with what it has to offer.

By Peter Chu

TESTED & RATED

8.0 /10

HWM
MALAYSIA

Available at

PLAZA LOW YAT



AT A GLANCE

Slot

PCL Express 3.0

Model

GV-N98TG1 GAMING-6GD

Memory

6,144MB 384-bit GDDR5

SLI

Supported

Price

RM2,899



Hard to imagine that two years ago, this sort of score was only achievable via two cards in SLI mode.

CONCLUSION

Gigabyte's G1 Gaming GeForce GTX 980 Ti makes a good first impression of an already powerful card.

SPECIFICATIONS

GPU Clock OC Mode: 1,190MHz (Base), 1,291MHz (Boost), Gaming Mode: 1,152MHz (Base), 1,241MHz (Boost) Tested: 1,302MHz (Boost), 1,152MHz (Base) // **Memory Clock** 7,010 MHz (Effective), 7,060MHz (Tested) // **Connectors** 1x Dual-Link DVI-I, 1x Dual-Link DVI-D, 1x HDMI, 3x DisplayPort (FLEX Display capable) // **Minimum PSU Required** 600W // **Dimensions** 295 x 129 x 43 mm // **Warranty** 3-year // **Contact** Nation-Tech Sdn Bhd / SDS Distribution Sdn Bhd // **Telephone** (03) 4280 6636 / (03) 7788 8700 // **URL** www.gigabyte.my



LORD OF OVERCLOCKING

Gigabyte G1 Gaming GeForce GTX 980 Ti

When NVIDIA's GeForce GTX 980 Ti was announced at COMPUTEX this year, we had half expected the graphics card manufacturers to only release their custom-cooled variety of the card a little further down the road. To our surprise, they actually revealed them on the very same day of the card's launch. In this month's issue, we got the chance to take the Gigabyte G1 Gaming GeForce GTX 980 Ti for a spin in our testbed.

If you check out our Lab Exam this issue, we also tested NVIDIA's reference GeForce GTX 980 Ti. As we described it, the card, in its stock standard cooler, is a better tuned and refined card, containing some gaming-centric elements that were sorely missed out on the GeForce GTX TITAN X. With the Gigabyte's G1 Gaming variant of this new graphics card, all those aforementioned point have actually been amplified.

As with all Gigabyte graphics cards that are given the G1 Gaming custom-cooling treatment, the new G1 Gaming GeForce GTX 980 Ti is covered in a lot of metal. The massive

heatsink is held in place with a metallic fan frame that also holds the three 0dB, 90mm WINDFORCE fans that Gigabyte designed to cool the card more efficiently. Gigabyte has also attached a backplate to the card which, besides adding to its aesthetics, increases the card's rigidity, while also acting a massive heatsink.

When it came to benchmarking the card, Gigabyte informed us that the card has an OC Mode that would automatically overclock the card, and that it could be activated via the OC Guru II software. However, we decided to manually overclock the card ourselves, as we wanted to see just how far we could push the card. At the end, we managed to overclock the card's GPU clock speed by an additional 150MHz, and its memory clock speed increased by an additional 50MHz as well.

With these overclocked speeds, we ran the synthetic benchmarks of 3DMark 2013 and Unigine Heaven. On 3DMark, the G1 Gaming GeForce GTX 980 Ti scored 16,400 on Fire Strike, 8,927 on

Fire Strike Extreme, and 4,744 on Fire Strike Ultra. On the Unigine Heaven benchmark, the card managed an average of 48 fps on a multi-monitor setup.

The games that we ran on the card were The Witcher 3: Wild Hunt, Grand Theft Auto V, BioShock Infinite, Crysis 3, and Batman: Arkham Origins. On average, the card managed to maintain a framerate of 50 fps or more across the floor, with the occasional framerate dip below 30 fps in Grand Theft Auto V.

By John Law

TESTED & RATED

9.0_{/10}

HWM
MALAYSIA

Available at

PLAZA LOW YAT

SAVAGELY IMPRESSIVE

Kingston HyperX Savage SSD (240GB)

There are plenty of SSDs on the market today, and the only thing that sets them apart is their reliability and performance. We were able to get our hands on the 240GB variant of the Kingston HyperX Savage SSD last month and wasted no time in putting it to the test. Find out just how well it performs in this review.

With four variants to choose from – 120GB, 240GB, 480GB, and 960GB – you're spoiled for choice. If you're eyeing this series for your next purchase, we recommend going for the 240GB version because this is the variant that offers the best price-to-storage ratio.

If you didn't yet know, the Hyper X Savage SSD series is the fastest SATA-based SSD available from Kingston. This is thanks to the use of a quad-core, eight-channel Phison S10 controller, which delivers read speeds up to 560MB/s and write speeds up to 530MB/s. It also delivers read/write IOPS up to 100k/89k.

As the flagship SATA-based SSD series from Kingston, the HyperX Savage SSD naturally

comes bundled with many extras. Among them are a 2.5-inch USB 3.0 enclosure; a 3.5-inch bracket and mounting screws; a SATA data cable; a 7mm-to-9.5mm adapter; and a very handy multi-head screwdriver. There's also a voucher to download the Acronis True Image HD software, which allows for easy file migration.

To test this SSD, we hooked it up to our test rig and ran CrystalDiskMark. We ran the test for five and nine cycles for a better idea of the performance of this SSD. After going through five cycles, CDM reported a sequential read speed of 526MB/s and a sequential write speed of 509MB/s. As for the nine-cycle run, it managed 527MB/s and 510MB/s, which shows just how stable the controller is. We then timed how long it took to transfer folders containing 4GB and 1GB worth of files. The average time it took to transfer the 4GB folder was 22 seconds, while for the 1GB folder, it was 21 seconds. Needless to say, it's highly impressive

performance.

Overall, the Kingston HyperX Savage SSD is very tempting, especially if you're a hardcore gamer, and you're your games and applications to load fast. Of course, installing the OS on this drive will also improve overall system performance. Simply put, this SSD is a strong contender in the high-performance SSD category. The 240GB variant also costs less than the 250GB Samsung EVO SSD, which is a plus.

by Bryan Chan

TESTED & RATED

8.5_{/10}

HWM
MALAYSIA

Available at

PLAZA LOW YAT



AT A GLANCE

Capacity

240GB

Adapter Included

Yes

Speeds

Up to 560MB/s (read),
530MB/s (write)

Form Factor

2.5-inch

Price

RM434.60

	Read [MB/s]	Write [MB/s]
Seq	527.3	510.3
512K	396.6	493.6
4K	31.42	95.23
IOPS	286.3	277.3

With a baseline performance of 527MB/s read and 510MB/s write, this is an impressive SSD!

CONCLUSION

Equipped with a powerful controller, the HyperX Savage SSD holds its own against heavyweights like the Samsung EVO series.

SPECIFICATIONS

Interface SATA 6Gb/s // **Controller** Phison PS3110-S10 // **Power Consumption** 0.39W (idle), 0.5W (average) // **Warranty** 3-years // **Contact** Amble Action Sdn Bhd / Convergent Distribution (M) Sdn Bhd / Ingram Micro Malaysia Sdn Bhd // **Telephone** (03) 7968 6899 / (03) 2144 1881 / (03) 7952 8188 // **URL** www.kingston.com

TELEPORT

PHONE OF THE PEOPLE

■ We reviewed Xiaomi's latest flagship smartphone, the Mi 4i.

MORE
INSIDE >

ULTRA FLAGSHIP

We take a good, long look at the HTC One M9+.

COOKING WITH NVIDIA

Meet the June Oven. It's powered by NVIDIA's Tegra K1 SoC.

#GOODBYEDICKCOSTOLO

Dick Costolo steps down as Twitter CEO.

RACE OF THE FUTURE

Elon Musk and SpaceX to build Hyperloop track for pod racing.



133
UNLOCKED



JOHN LAW

Mobile Adventurer Extraordinaire

Smartphones or tablets, it doesn't matter. When not occupied with watching a YouTube video or movie on his mobile devices, this man is busy trying some newly designed app from the Google Play Store or simply just chatting away on whatever social media app that is currently being used. On top of that, you can also see him making gestures at his desk while listening to classical music on his favorite radio app.

SMARTPHONES & TABLETS

When it comes to smartphones and tablets, we prefer letting our readers know how the devices we review appeal to us in terms of performance, design, features and other aspects such as battery life, usability and its overall value. To test these devices we replace them with our own daily use devices and use them as we would any smartphone or tablet.

As for Android based devices, we use a trio of benchmarks to gain a more tangible idea of their performance and these include:



• **AnTuTu Benchmark:** At the moment, AnTuTu is one of the best benchmarks

as it is a complete package that gives us an all-round hardware test that includes the likes of Memory Performance, CPU Integer Performance, 2D and 3D Graphics Performance, SD Card Read/Write Speed and more.



• **Quadrant Standard Edition:** Ever since Quadrant was released, it has

become a staple in the arsenal of smartphone and tablet reviewers as it provides a comprehensive set of tools that test the performance of a device's CPU, I/O and 3D graphics.



• **Epic Citadel:** We reserve Epic Citadel for devices that fall in the high-end and mid-range categories as this benchmark

truly shows the capabilities of a device's GPU. Powered by the critically acclaimed Unreal Engine 3, Epic Citadel features effects such as Global Illumination, Dynamic Specular Lighting with Texture Masks, Vertex Deformation, Skeletal Animation, etc.

MOBILE NETWORKING



Mobile networking devices such as 3G/4G dongles and MiFi devices are fast becoming hot commodities as our appetite for data consumption continues to grow. Depending on the device type, here are the two tests we commonly use to gauge their performance:

• For devices capable of sending and receiving data packets such as a mobile router with a LAN port, we use our standard 1GB file transfer test at various ranges to see how stable and fast the connection is.

• As for devices that rely on a mobile operator's signal strength such as MiFi devices, we test them around the Klang Valley to provide you with a better picture of the service as a whole. For devices like these, we also rely on the Speedtest.net application or website to discover its Download, Upload and Ping rates.

ACCESSORIES

To gauge the performance and features of accessories such as docks, speakers, Bluetooth headphones and wired headphones, we use our standard audio testing suite which lets us know just how well a device handles music from different genres. We normally play audio tracks from various sources and in various formats but we usually rely on a few artists which include:

- Yoko Kanno
- Joanna Wang
- John Mayer
- Jon Bon Jovi
- Nightwish

If the device has a microphone or works as a speakerphone, we also test it by making actual phone calls. After all our tests, we then explore other areas such as stress-handling, usability, design and value.



FACEBOOK SEES ALL

Facebook Moments Can Now Identify Friends in Your Photo Gallery

Facebook has come a long way since it first started. What originally started as 'Thefacebook' has now amassed a huge presence of over a billion followers in the mobile ecosystem with its Facebook and Messenger apps, respectively. That being said, the company has been adding more Facebook-centric apps to its digital portfolio of late, with the latest offering called Facebook Moments, or simply just Moments.

What is Moments? It's essentially an app that uses facial recognition technology in order to scan through your phone's camera roll (aka your photo gallery) for any familiar faces, and then quickly syncing said photos to the relevant subjects scanned inside each photo. How Moments manages to perform this feat is actually quite simple: it uses the same tagging technology that Facebook already implemented inside its own site and core app whenever you upload a photo of a friend to the social cloud.

If your friends use Moments

as well, that very same photo will be automatically added to their own collection of synced photos. Additionally, Moments will also group your photos based on when they were taken and who is in them. The accumulated photos make for a very interesting visual representation on your own event timeline.

The concept that Moments is based on is nothing revolutionary, as other apps such as Google Photo and Flickr already offer similar tagging and photo organization capabilities. However, the difference between them and Facebook's new Moments app lies in two key factors. The first is Facebook's already massive database of users

and their photos, and the second being an automatically generated message that tells non-Moments users to download the app if their own friends shared something with them through the app.



Facebook's new Moments app searches through your camera roll via facial recognition.

BYTES

Facebook Messenger Now Has Over 700M Monthly Active Users

Facebook has achieved a new milestone by having 700 million active users using its Messenger app, which is almost as many WhatsApp users. Facebook CEO Mark Zuckerberg attributed this explosive growth from 600 million to his company's decision to launch the service as a standalone app back in August 2011. With more than a billion users on the primary Facebook app, the majority of its users had no choice but to download the Messenger app if they want to chat in private.

Limited Iron Man Edition Samsung Galaxy S6 edge Sold for US\$91,000 in China

Less than a month after the limited Iron Man edition of the Galaxy S6 edge was launched by Samsung, one Chinese customer went to great lengths to get himself a unit by paying US\$91,635 (approx. RM340,117), almost 85 times more than the original retail price of US\$1,079 (approx. RM4,004). When asked why he wanted the phone so badly, he merely said that it was because it had the serial number of 66 and that apparently, the number 6 symbolizes good luck in Chinese culture.

BlackBerry Considering Making Android Device

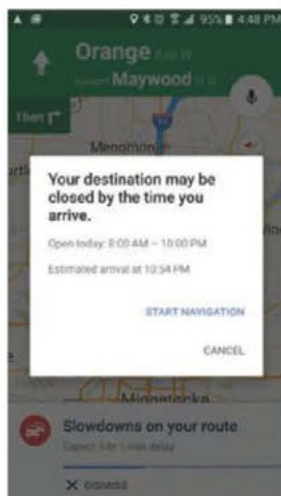
BlackBerry may consider making an Android device. As it stands, the company is in dire straits, having seen its market share in the mobile and smartphone space drop to less than one percent. Its BlackBerry 10 lineup has so far failed to regain any significant market share from iOS and Android, and the company is now banking on its new device management system, BES12. Sources said that an Android-based device would help BlackBerry convince users that the BES12 system can successfully manage and secure devices that are powered by its competitors.

GETTING THERE IN TIME

Google Maps Now Informs Users of Destination's Opening Hours

Imagine going to a restaurant that takes you a good hour to get to from home, only to find out that the restaurant is closed. Needless to say, it is frustrating to see either, because you did not know their opening times, or you got there too late. Google is fully aware of this as well, which is why they've updated the Google Maps app to warn you of the destination's closing time (if applicable).

With the new update, the app will now warn you if your destination of choice will be closed when you get there. It does this by taking into account the store's operating hours, along with the distance and travel time for the place. To elaborate: if you've just finished work and you want to go to this new restaurant to try out



Google Maps will now warn you if you are unable to make it to a place before their closing time.

their supposedly awesome meals, Google Maps will proceed to calculate the most efficient route from your current destination. One calculated, a message will pop up, informing of the venue's opening hours, as well as your predicted time of arrival.

If for some reason, all routes happen to be congested with traffic that day, and Google Maps thinks that you will not be able to make it, a warning message will pop up, informing you of the unlikely hood of you actually making it to the place before their last call. Of course, it goes without saying that you can dismiss the warning, if your intention was simply to use the venue as a landmark, or a legend to help you get where you're going.



Jourdan Dunn, international fashion icon ambassador of HTC's limited edition One M9+ INK.

GETTING INKED AND FASHIONABLE

HTC One M9+ INK Takes to the Runway with Supermodel Jourdan Dunn

■ Celebrity endorsement is always a game changer for many companies. Once a product is seen being used by a celebrity or in a movie, it's already a given that the product's manufacturer would be seeing an increase in their sales figures. It's for those reasons that companies such as HTC was adamant of getting Robert Downey Jr. as their spokesperson some years ago.

These days, HTC's search for a celebrity endorsement has been more focused in another venue: the fashion world, and its hallowed runways. To that end, HTC had chosen fashion supermodel and international fashion icon Jourdan Dunn as their spokesperson. To celebrate, they then had Jourdan walk on the runway with the One M9+ INK, a limited edition version of its new plus-size flagship smartphone that features a one-of-a-kind art style that has been engraved into the back of the phone.

The art style, which was designed by Jourdan in collaboration with body artist Cally-Jo, is reflective of Jourdan's style and creativity.

"Body art is an important part of my look and, as I don't go anywhere without my phone, it makes perfect sense to combine the two to create a uniquely personalized accessory. The opportunity to work with a brand that is famous for design and to put my own creative stamp onto a beautiful looking handset was something that really appealed, with the HTC One M9+ INK really capturing my personality," Jourdan said.

COOKING WITH NVIDIA

The June Oven is Modern, Futuristic, and It's Powered by the NVIDIA Tegra K1



An NVIDIA Tegra K1-powered oven that tells you when your roast chicken is done.

■ NVIDIA is, by trade, a company that specializes in graphics technologies. They've got their hands dipped in just about everything that requires a measure of graphical prowess, such as PC gaming, automotive technology, and last but not least, science (applied, computer, theoretical, and to a greater extent, biological).

Now, thanks to one particular company, we can now throw in culinary discipline into that list. Known as the June Oven, this cooking appliance is a smart oven that is powered by Tegra K1, the mobile supercomputing processor that is used in NVIDIA's own SHIELD Tablet and Audi's Self-Driving A7 Concept Driving car, which you can read about in the Think section.

The June Oven is fitted with a 5-inch display for controls, and also has carbon fiber heating elements inside the oven that helps it reach a temperature of 177° Celsius in a matter of minutes. It's also got a Full HD camera embedded inside the roof of the oven, which is able to identify what it is you're trying to cook and the ingredients being used in the dish. Once it has determined the ingredients, the June Oven will then calculate the approximate time needed to cook the aforementioned dish.

The best part about this oven is that you can actually sync it to your smartphone or tablet, allowing you to monitor your cooking progress, away from the kitchen.

BRING ON THE HEAT

Sony to Deal with Overheating Issues on Xperia Z3+ and Z4

■ Qualcomm has been under fire (no pun intended) of late, mainly because of a heated argument (pun intended) over its new 64-bit Snapdragon 810 SoC overheating unnecessarily in flagship phones, such as the HTC One M9.

It's not just HTC either. Sony is another company that has been ardently supportive of Qualcomm since it launched the Xperia Z series. Its latest flagship, the Xperia Z4 and Xperia Z3+ are the latest models to fall victim to the nefarious overheating issue caused by the Snapdragon 810 processor, and this is despite the fact that both of these flagships having better thermal regulations than other phones that utilize the powerhouse processor.

Complaints had arisen from Japanese consumers about the Xperia Z4 getting a little too warm, both when held or inside their pockets, while the Xperia Z3+ was reportedly shutting down its camera when it got too hot, a problem that echoes back to the Xperia Z2 and its overheating problems when the phone was used to record 4K video.

Mercifully, Sony has not been silent about these complaints. At the time of writing, Sony released a statement acknowledging the problem, saying that they would try and get a software update ready that would fix the problem as soon as possible.



The Xperia Z4 and Z3+ are suffering from overheating issues, brought on by the Snapdragon 810 processor inside them.

#GOODBYEDICKCOSTOLO

Dick Costolo is No Longer the CEO of Twitter

■ At the beginning of this month, Twitter CEO Dick Costolo stepped down from his pedestal of power. Costolo, the man who personally took upon himself to battle against the hatemongers and trolls on the popular 140-letters social media blaster, has officially resigned from Twitter. In his place, the company's Board of Directors has named Jack Dorsey as interim CEO, a co-founder of Twitter and also the CEO of Square, a company dealing with mobile payments and small business platforms.

One of the reasons that Costolo decided to throw in the towel was because he was "sick of the constant scrutinizing by Wall Street investors." This comes after Twitter reported that its user base growth has become sluggish over the last couple of months. In a note to the investors, Costolo also told them that his or any other resignation would "never, ever have a right time," and that he thought this was the best time to do it because Twitter, as an organization, was "stable and still robust."

Dorsey's position as interim CEO is only a temporary role, at least until Twitter's Board of Directors manage to find a permanent replacement who could lead the company. While no official word has been given, it seems that Twitter CFO Anthony Noto, and Head of Revenue and Partnership Adam Bain are possible candidates for the role.



So long Dick Costolo, #ithasbeenfun.

FIRST TO BE FAST

ASUS ZenFone 2



TAP FOR
GALLERY

AT A GLANCE

Network

4G LTE (slot 1), 2G (slot 2)

Camera

13-megapixel PixelMaster 2.0 (rear), 5-megapixel (front)

Display

5.5-inch Full HD IPS (1,080 x 1,920)

OS

Android 5.0 Lollipop (with ZenUI)

Price

RM1,099

ASUS' ZenFone series took off on a very interesting note. Last year, it first launched the ZenFone 4, ZenFone 5 and ZenFone 6, with the numbers indicating the phones' screen sizes. Now, we have the ZenFone 2, which still comes in two sizes: 5- and 5.5-inch form factors. The potential for confusion is great here, especially in two years' time when ASUS is bound to announce the 4th generation ZenFone.

That aside, the ZenFone 2 does come equipped with a world's first. It is the first smartphone to come with 4GB of RAM. Well, some of them do. See, the 4GB RAM

is only available to two of the three 5.5-inch variants. The difference between these two is in internal storage space. One comes with 64GB while the other – which is the one we have – comes with 32GB.

It may be a pretty understated feature at first, but it deserves appreciation, especially where performance is concerned, but more on that later.

On the outside, the ZenFone 2 seems to have taken some design cues from two notable sources. The back cover looks like the kind of brushed aluminum that you'd find on the HTC One family. That said, it is in fact plastic, so

you'll really need to take good care of it. It gets scratched easily, and each one tears the brushed aluminum façade by quite a bit.

Sitting on the top half is the volume rocker, reminiscent of the one you'll find on LG's G series smartphones. There is a difference to be noted here though: the power button is not hidden in the middle of the rocker; it is in fact on the very top of the phone, which does make it quite difficult to reach, especially if you insist on a strictly one-handed usage. Speaking of which, both the power button and the volume rocker sport ASUS' concentric circular design. The 13MP

PixelMaster 2.0 camera sits just above the volume rocker, and on the opposite end of the back cover is the speaker grille.

Up front, you have the 5.5-inch Full HD display with the off-screen capacitive buttons. Below them is another spot where you'll find the concentric circular design. On top, there's the earpiece sitting in the middle, and to its right is the 5MP secondary camera. At the very bottom of the phone is the lone Micro-USB port.

Looking at the sides, you'll notice that it is much thinner

here than it is down the middle. This gives the ZenFone 2 an ergonomic curve down the middle for a better fit in your hand, but there are some issues with it as well, such as when you put your phone on a table. It wobbles around when there's a breeze, and you can't pile other things like your wallet on top of it for they will all just fall over.

Staying on the sides, there is a slit of sorts on the lower right side. This is to make it easier for you to pry off the back cover, but if you have

short nails, you may end up shaving bits of it off before you can get to the innards. With the cover off, you'll get access to a microSD card slot and two Micro-SIM slots, the first of which supports up to 4G. Also visible from here, but not accessible unless you do damage to the phone's structure, is the 3,000mAh battery. If you do happen to have short nails, then you should pack these slots up to avoid having to open it too often.

Now, onto the actual performance of the phone: How does the world's first phone with 4GB RAM stack up to the others? Quite well, actually. With the quad-core Intel Atom Z3580 2.3GHz processor and 4GB of RAM, benchmark figures are pretty amazing, especially when you consider the price of this particular model: RM1,099. Numbers like 47,533 for AnTuTu, 23,548 for Quadrant, 20,098 for 3DMark's Ice Storm Unlimited and 5,544 for PCMark for Android are usually only found in phones priced twice or more of the ZenFone 2.

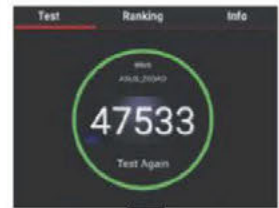
Its cameras are another strong point. The 13MP PixelMaster 2.0 camera takes pretty great photos, but comes with some neat features to complement it. Its auto-focusing is really fast too, and it maintains the brilliant Low Light mode of previous ASUS phones. The front camera is no slouch either, taking good quality images that are complemented with useful software extensions like Selfie Panorama.

The ZenFone 2 then, is another sign of a change in trend: a phone's price is now as much an indicator of material as it is for specs. The distinction of phones by price bracket is getting blurrier, and in the case of phones like the ZenFone 2, this is a good thing.

By Ian Chee



You can't remove the battery, even when it is sitting here in plain sight.



Maybe we all should stop caring about materials when a sub-RM2,000 phone gets scores like this.

CONCLUSION

The ASUS ZenFone 2 proves that good phones don't have to come with exorbitant prices.

SPECIFICATIONS

Processor Quad-core Intel Atom Z3580 2.3GHz // **Connectivity** WLAN 802.11 a/b/g/n/ac, Micro-USB, Bluetooth 4.0, NFC // **Memory** 4GB RAM, 32GB internal storage (expandable via microSD up to 64GB) // **Colors** Black, White, Red, Gray, Gold // **SIM Card Type** Micro-SIM // **Battery** 3,000mAh // **Dimensions** 77.2 x 152.5 x 3.9 ~ 10.9 mm // **Weight** 170g // **Warranty** 1-year // **Contact** Dynamics Distributions Sdn Bhd / Servex (M) Sdn Bhd // **Telephone** (03) 8024 2100 / (03) 8024 6688 // **URL** www.asus.com/my

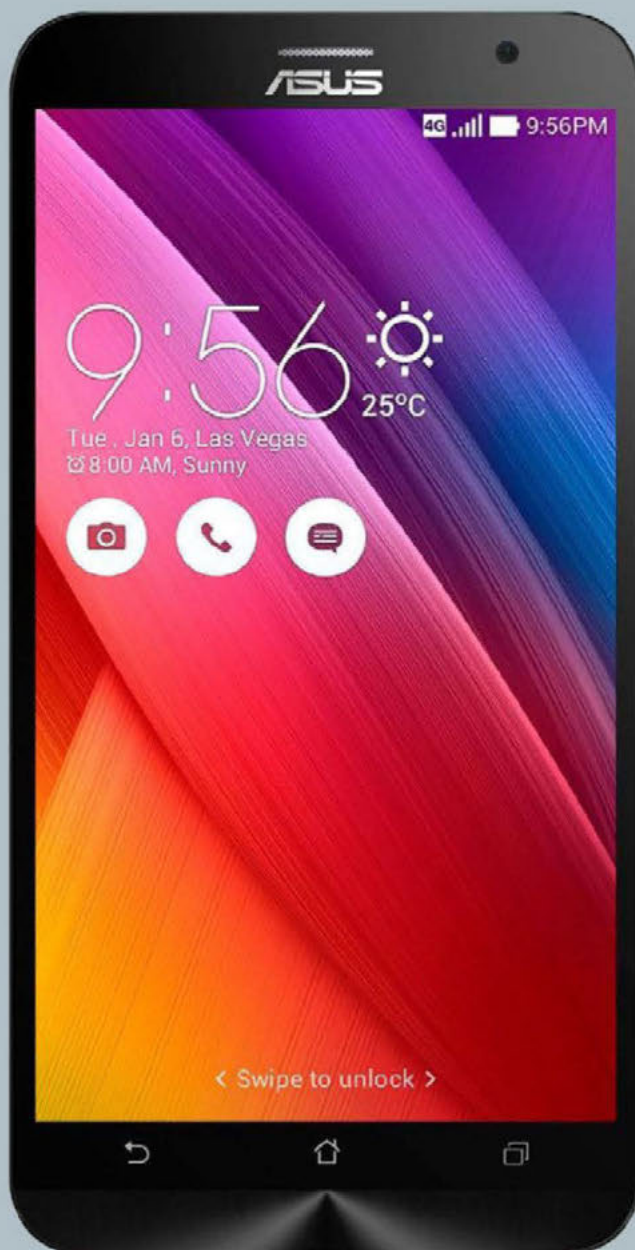
TESTED & RATED

9.0_{/10}

HWM
MALAYSIA

Available at

PLAZA LOW YAT





ULTRA FLAGSHIP

HTC One M9+

AT A GLANCE

Network

4G LTE

Camera

20MP Duo Camera (rear), UltraPixel Camera (front)

Display

5.2-inch WQHD Super LCD 3 (1,440 x 2,560)

OS

Android 5.0 Lollipop (with Sense 7 UI)

Price

RM2,599

As far as top-of-the-line smartphones go, HTC is a brand that's been doing relatively well over the past couple of years. With the launch of the One X and One X+ in 2012, it became clear that HTC had finally found its flagship in the One series. Since then, the One smartphone lineup has been constantly evolving in design, specifications, and features. In this issue, we take a look at the culmination of HTC's technological know-how in its new ultra variant of the current One flagship, the HTC One M9+.

To be quite frank, the original One M9 was a great

phone, but you couldn't hide the obvious fact that there were some things missing from it. Compared to its previous flagship – the One M8, the One M9 was effectively an exact replica of its predecessor, save for its processor. Both sported the same 5-inch Full HD display and even the same features. Needless to say, HTC's own fanbase weren't too happy that the new flagship was simply a mirror image. That is, pretty much, where the One M9+ comes in.

In essence, the One M9+ is everything that the One M9 was not. It's got a bigger 5.2-inch WQHD display, and that means everything on it just

looks sharper, and because it's saturated with an extremely high pixel density, the details on any and all images are absolutely gorgeous. To complement the experience, it comes pre-installed with HTC's Sense 7 UI, on top of Android's Lollipop 5.0 OS.

There are a couple of things that haven't changed since the One M9, the cameras being one of them. In what seems to be a lesson learnt, HTC made the decision to replace the UltraPixel sensor in the rear with a bigger and more effective 20MP sensor, which forms part of the Duo Camera setup with a depth sensor that allows us to take some novelty



The One M9+ performs quite well on 3DMark, but seems to struggle on this benchmark.



You can take some really great close-up shots with the new 20MP sensor in the Duo Camera.

CONCLUSION

The HTC One M9+ covers all bases on what the One M9 missed, including a steep asking price.

SPECIFICATIONS

Processor 2.2GHz MediaTek helio X10 SoC // **GPU** PowerVR G6200 // **Multimedia** Audio: MP3/eAAC+/WMA/WAV/FLAC Video: DivX/XviD/MP4/H.263/H.264/WMV // **Connectivity** 3.5mm stereo audio jack, Micro-USB 2.0, Wi-Fi IEEE 802.11 a/b/g/n, Bluetooth 4.0, NFC, Fingerprint Sensor // **Memory** 3GB RAM, 32GB internal storage (expandable via microSD) // **Colors** Gold on Silver, Gunmetal Gray, Gold on Gold // **SIM Card Type** nano SIM // **Dimensions** 150.9 (L) x 71.9 (W) x 9.6 (H) mm // **Weight** 168g w/battery // **Battery** 2,840mAh Li-polymer // **Warranty** 1-year // **Contact** HTC Customer Service Hotline // **Telephone** 1 800 889 855 // **URL** www.htc.com

pictures. If you're thinking about what happened to the UltraPixel sensor, fret not, it's merely been relegated to front-facing camera duty now, which actually makes more sense as a selfie camera.

Photos taken during the day or in areas with ample amount of light were clear, sharp, and relatively noise-free, as we expected. Surprisingly, the camera's ability to compensate for shots taken during the night or in poorly-lit places is impressive, capturing as much detail as a daytime shot, with an exceptionally minimum amount of noise.

Despite having a 2,840mAh battery, the One M9+ impressed us quite a bit with close to two days of general usage on a full charge, which included the occasional YouTube videos, emails, and web browsing. The phone sang a different tune on our video loop test, lasting a mere six hours and 35 minutes on a full battery, with the volume set

at 65 percent and the screen brightness at 45 percent.

There is one additional feature to the One M9+ that its smaller brother lacks: a fingerprint sensor located just below its display. While the inclusion of the fingerprint sensor does provide an extra layer of security, we actually found it a bit odd place when you consider that the main function buttons (the home and back button) are software-based.

The primary difference between the two phones – and this was a sticking point for us – was HTC's processor of choice for this M9+ variant.

Why is it a point of contention for us? Because for as long as HTC has been making the One series, its SoC of choice has always been from a long list of Snapdragon processors made by Qualcomm, one of the industry's heavyweights in the mobile world. Imagine our surprise then, when we

discovered they decided to fit the One M9+ with a MediaTek processor. More precisely, MediaTek's new state-of-the-art 64-bit, octa-core SoC: the helio X10.

It's surprising to us because MediaTek is a company which has had a history of processors that are more commonly used in either entry-level or budget-friendly smart devices. We'll be frank: before the helio X10, our perception of MediaTek processors was that they were relatively mediocre.

As the story goes, the helio X10 SoC is surprised us even further with its performance numbers. On 3DMark's Ice Storm Unlimited, the phone scored 13,368, but struggled to maintain a steady frame rate of 27FPS in Epic Citadel's Ultra High Quality setting. On AnTuTu, Quadrant, and PCMark, the phone scored 51,016, 25,864 and 4,073, respectively. Unsurprisingly, things can get a little warm with the One M9+. During the 3DMark and Epic Citadel benchmark, the phone would feel rather warm to the touch. It doesn't help that the back of the phone is made out of metal, so at one point, we just decided to put the phone down to let it cool off.

By John Law



TESTED & RATED

8.5_{/10}

HWM
MALAYSIA

Available at

PLAZA LOW YAT



SMARTWATCH RELOADED

Pebble Time

AT A GLANCE

Display

1.25-inch color e-paper, LED backlight

Battery

Li-ion polymer, up to 7 days per charge

Connection

Bluetooth 4.0 LE

Dimensions

40.5 x 37.5 x 9.5mm (case), 22mm (band)

Weight

42.5g

Price

US\$199

The original Pebble was the highest backed Kickstarter campaign in history at US\$10 million, a record broken only three years later by none other than its own successor, the Pebble Time, which raked in US\$20 million in pledges. By the time you read this review, the initial 10,000 backers would have gotten their watches and public pre-orders started. So, if you missed out on the whole Pebble smartwatch craze the first time around, should you be jumping all over the Pebble Time?

For starters, it is more compact than the original Pebble and build quality has greatly improved; the case is still polycarbonate, but the bezel is stainless steel. It also has a microphone now, but functionality out-of-the-box is limited as app developers will have to specifically make

use of it. Water-resistance may have decreased from 50 meters to 30 meters, but the Pebble Time is actually tested and rated according to the newer ISO 22810 standards, where a watch must be able to operate at its actual rated depth without leaking. This is in comparison to the old ISO 2281 standard, where a 30 meter/3ATM rated watch would in reality only survive light splashes and sweat. I've gone swimming with the Pebble Time and it continues to work like a champ.

The biggest selling point of the Pebble Time is its new color e-paper display, where the original Pebble was only monochrome. Even with the color upgrade, it matches the Pebble by being always-on and still boasting up to seven days of battery life per charge. Throughout the course of this review, I was

extensively using the Pebble Time, installing watch faces, apps and navigating through its many functions. From Saturday through Monday, the battery only drained from 90 percent (straight from the box, I did not charge it at any point through this review) to 50 percent.

The e-paper display is quite dim though. Yes, it is always on. Yes, it works quite well outdoors under direct sunlight. But, the Pebble Time's display looked muddy and dull indoors, even when compared with the original Pebble and with its LED backlight enabled. Speaking of which, you're also unable to change the duration of the backlight. Its halo feature may just end up being its worst Achilles' heel.

The second major improvement is its overhauled operating system, called Timeline, where Pebble introduces a novel way for app



The Pebble Time features fun little animations as part of its new Timeline UI, adding some geek chic, but it's not business friendly like the Pebble Steel.



The Pebble Time has a microphone that app developers can make use of, but it does not natively support smartphone OS functions like Siri or Google Now.

CONCLUSION

Upgraded in every aspect with the best battery life bar none, but let down by a dull display and true potential that's yet to be realized.

SPECIFICATIONS

Sensors 3D accelerometer, compass, ambient light sensor, microphone // **Operating Temperature** -10°C to +60°C // **Max. Operating Altitude** 10,000 feet (3,000m) // **Water Resistance** 30-meter // **Dimensions** 40.5 x 37.5 x 9.5 (L x W x T) mm; including lugs, 46 mm (L) // **Weight** 42.5g (incl. standard band) // **URL** www.getpebble.com

developers to directly interact with the watch. Say you want to check out the latest sports scores, your to-do list for the day and weather information; having to open three different apps isn't exactly intuitive on a small 1-inch screen on your wrist. Timeline allows apps to post updates as specific pins on a flowing time line. Pressing the top right button scrolls back in time and pressing the bottom right button scrolls forward. There are only a few apps that properly support Timeline at the moment, but with the SDK and watches out, expect this to grow.

At its recent WWDC, Apple also announced a similar feature in its next version of watchOS for the Apple Watch called Time Travel, where scrolling the digital crown back and forward will show you updates on past and future events. Because of this, there is one less unique feature that the Pebble Time has going for it as the Apple Watch suddenly becomes the smartwatch to

beat.

Now, while the original Pebble was hobbled by a restrictive user interface with severe limitations on the number of apps and watch faces that you could install, the Pebble Time feels infinitely more modern and seamless. You still need to get the Pebble Time app on your phone and app configuration is done there. When it reaches its memory limit, earlier apps will still be listed on the watch. As long as your watch and phone are connected, selecting an unloaded app will automatically re-load it back from your phone. As a quick note, the Pebble Time app needs iOS 8+ and Android 4.0+ because it uses Bluetooth 4.0 for connectivity.

Last and perhaps most important, the Pebble Time features a smart accessory port on its rear. This is the same charging port, but Pebble has made it possible for third-party smart straps

to extend the functionality of the base watch with add-ons like GPS modules, heart rate monitors or cellular antennas. The possibilities are endless. While it is impossible to judge the success of this endeavor at this early stage, the Pebble Time introduces the concept of modular smartwatches that can evolve with need, and that's a really big deal, just not at the moment.

by Zachary Chan

TESTED & RATED

7.5_{/10}

HWM
MALAYSIA



AT A GLANCE

Operating

Android 4.4.4 KitKat
(upgradeable to 5.0.2
Lollipop)

Display

5.5-inch HD Super AMOLED

Storage

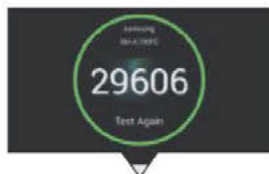
16GB (up to 64GB via
microSD)

Camera

13MP rear AF camera with
LED flash, 5MP front-facing
camera

Price

RM1,499



The A7 scored 29,606 on the
Antutu benchmark.

CONCLUSION

**A full-featured
phone with
competent
performance at
half the price
of a premium
flagship.**

SPECIFICATIONS

Processor Quad-core 1.5GHz
Cortex-A53 and quad-core 1.0GHz
Cortex-A53 // **GPU** Adreno 405 //
Memory 2GB RAM // **Multi-SIM**
Nano-SIM // **Dimensions** 151 x
76.2 x 6.3 mm // **Weight** 141g
// **Warranty** 1-year // **Contact**
Samsung Careline // **Telephone** 1
800 88 9999 // **URL** www.samsung.
com/my



OF ALL TRADES

Samsung Galaxy A7

On paper, the follow-up to Samsung's Galaxy A3 and A5 smartphones looks more like a clone. It shares so many specifications, it is uncanny. In practice, however, the Galaxy A7 differs where it counts and it is going to cost you a little bit more.

Like its immediate siblings, the Galaxy A7 offers 16GB of storage, a 13MP rear camera, a 5MP front-facing camera, and Corning Gorilla Glass 4 protection. All three phones also come stocked with Android 4.4.4 KitKat, confirmed to be upgradeable to Android 5.0.2 Lollipop, of course.

Of all the differences that set the A7 apart from the A5

and A3, the most noticeable is its display. Gone are the 5-inch (720 x 1,280) and 4.5-inch (540 x 960) Super AMOLED displays. In its place is the far more enjoyable 5.5-inch (1,080 x 1,920) Super AMOLED screen.

Good looks aren't the A7's only strong point. The device also feels good in the hand as well. We are not a big fan of the raised camera design or the slippery back panel. However, the overall phone fits in the hand very well, with the sides providing enough grip to make it feel secure during use.

The model we tested – the A700FD – has a quad-core 1.5GHz Cortex-A53 and a quad-core 1.0GHz Cortex-A53 that



form the Qualcomm MSM8939 Snapdragon 615 SoC, while paired with 2GB of memory. It's not the fastest chip in the market, not even in its class, but as its score of 17,808 in Quadrant shows, it is a very competent smartphone for everyday use.

For those who rely on their smartphone for productivity, you'd be happy to know that the A7 scored 3,161 on PCMark's Work performance test. Its large HD screen makes tasks like web browsing, minor photo editing, and video playback a viable option in a pinch.

Gamers on a budget should not brush aside the A7. It offers ample performance for casual games, and there is enough to spare for those leaning towards the hardcore side of things. Notably, it scored a commendable 7,987 in 3DMark's Ice Storm Unlimited benchmark test.

by Azizul Rahman Ismail

TESTED & RATED

8.0_{/10}

HWM
MALAYSIA

Available at

PLAZA LOW YAT

PHONE OF THE PEOPLE

Xiaomi Mi 4i

AT A GLANCE

Network

4G LTE (Dual Micro-SIM)

Camera

13MP (Rear) / 5MP (Front)

Display

5-inch Full HD (1,920 x 1,080) IPS

OS

Android 5.0 Lollipop with MIUI v6

Price

RM749



That little bump ensures that your audio experience is unhindered by any surface.

CONCLUSION

The Xiaomi Mi 4i is a phone made from top quality parts. It's a shame that they couldn't provide an expandable storage option.

SPECIFICATIONS

Processor Qualcomm Snapdragon 615 64-bit octa-core (1.7GHz + 1.0GHz) // **GPU** Adreno 405 // **Connectivity** 3.5mm stereo audio jack, Micro-USB 2.0, Wi-Fi 802.11a/b/g/n/ac, Bluetooth 4.1 // **Memory** 2GB RAM, 16GB internal storage (non-expandable) // **SIM Card Type** Dual Micro-SIM // **Dimensions** 138.1 (L) x 69.6 (W) x 7.8 (T) mm // **Weight** 130g // **Battery** 3,120mAh Li-ion // **Contact** Xiaomi Malaysia // **Telephone** 1 800 281 182 // **URL** www.mi.com/my

The Xiaomi Mi 4i is, for lack of words, the international version of the Mi 4. We call it the international variation, simply because the Mi 4 never officially saw distribution in Malaysia. The question is, as always: is the Mi 4i as good, or better than its predecessors?

At a glance of its specification sheet, the Mi 4i seems to be a slightly watered down version of the Mi 4. Don't be fooled though, for there's a lot more to this phone than meets the eye. For starters, some of the phone's physical aspects possess a level of subtlety in its design. The phone's 5-inch display, to start with, is one of them. Compared to other smartphones, the display on the Mi 4i is built with far less layers, and that has allowed Xiaomi's engineers to make the amalgamation

between display and body looks seamless to the eye.

Another subtlety that you would hardly notice is the speaker grille behind the phone. What's impressive about the Mi 4i's speaker are not the holes that have been machine drilled into it, but rather that little bump that you can see just below the grille. That little bump is actually a stand that lifts up the Mi 4i's bottom less than a millimeter off the surface, ensuring that the speaker isn't muffled by any surface.

Xiaomi has never been shy to admit that they make their phones by borrowing parts from the best. The camera sensors, for example, come directly from both Sony and Samsung. With these sensors, the Mi 4i has proven itself capable of taking some really detailed shots

And then there's the processor: unlike its predecessors, the Mi 4i is fitted with a second generation Snapdragon 615 SoC, which is a 64-bit octa-core processor. Specifically, this particular Snapdragon 615 was made in collaboration between Xiaomi and Qualcomm, so this SoC has actually been tweaked and worked over to perform efficiently for the Mi 4i. That being said, it's neither the fastest nor the most powerful processor on the block, as you'll see with some of the benchmark scores.

Sadly, the phone does have one sticking point, and that is its paltry 16GB internal storage, and the lack of an expandable storage slot. We've made our case about this time and time again: considering the size of some of today's most used apps, 16GB just isn't enough for the casual user, let alone the social media junkie.

We put the Mi 4i through the synthetic benchmarks of 3DMark, AnTuTu, Quadrant, and PCMark. The phone scored 7,483, 36,164, 23,454, and 3,246, respectively. On Epic Citadel, the Snapdragon 615 SoC showed its limitations as it struggled to maintain an average frame rate of 24 fps on the Ultra High Quality settings.

By John Law



TESTED & RATED

8.5_{/10}

HWM
MALAYSIA

TAP FOR

GALLERY



AT A GLANCE

Operating System

Windows Phone 8.1 with Lumia Denim

Display

5.7-inch TrueColor HD (1,280 x 720) display

Storage

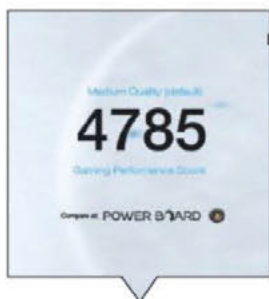
8GB (expandable up to 128GB via microSD)

Camera

13MP rear, 5MP front

Price

RM929



The Lumia 640 XL produces good quality photos even in low light.

CONCLUSION

The Lumia 640 XL is packed full of desirable specs, which lend it a competitive edge.

SPECIFICATIONS

Processor 1.2GHz Qualcomm Snapdragon 400 Quad-Core // **Connectivity** WLAN 802.11b/g/n, Bluetooth 4.0, USB 2.0, 3.5mm audio jack // **RAM** 1GB // **Battery** 3,000mAh // **Colors** Matte Cyan, Orange, Black, and White // **Dimensions** 157.9 (H) x 81.5 (W) x 9 (T) mm // **Weight** 171g // **Warranty** 1-year // **Contact** Microsoft Devices // **Telephone** 1 300 88 1600 // **URL** www.microsoft.com/en-my/mobile



PERFECT FOR FIRST-TIMER

Microsoft Lumia 640 XL

Joining the latest lineup of midrange Windows Phone devices is the Lumia 640 XL, which was announced alongside its little brother, the Lumia 640, at MWC 2015. Both share many similarities, with the obvious difference being the screen size and the less obvious being their cameras. Priced at RM929, does it have what it takes to attract first-time Windows Phone users? Let's find out.

At first glance, there's little to differentiate the Lumia 640 XL from other Lumia devices. The black front bezel gets a colorful wraparound polycarbonate shell, of which there are four variants to choose from: cyan, orange, black, and white. Despite its larger form factor, the 5.7-inch Lumia 640 XL remains minimalist, with on-screen buttons, volume rocker, power button, Micro-USB port, 3.5mm audio jack, and a comfortable grip surface rounding up the exterior features. The TrueColor HD IPS LCD display is also protected from everyday elements by Corning Gorilla Glass 3.

Pry open the removable back cover – with its signature Lumia design – and you'll find the replaceable 3,000mAh battery, along with the 3G/4G dual-SIM and microSD slots underneath it, the latter which allows for expandable storage beyond the built-in 8GB. Specifications-wise, the Lumia 640 XL runs on the latest Windows Phone 8.1 OS, and comes powered by a 1.2GHz quad-core Snapdragon 400 SoC and 1GB of RAM. As it's pre-installed with the Lumia Denim update, the phone offers several nifty features out of the box, including the one-swipe Action Center, Word Flow, Live Folders, and a complimentary one-year subscription of Office 365 Personal.

Whatever the case, the larger room afforded by the Lumia 640 XL allows for not just a 13MP Carl Zeiss autofocus camera with LED flash, but also a 5MP front-facing f/2.4 camera. The phone offers a variety of shooting modes, such as Burst Mode, HDR, and Dynamic Flash, which captures photos automatically both with and without flash, which you

can then decide by applying the desired amount of flash to the shot afterwards. The Lumia Camera app also offers full manual control of the ISO, shutter speed, white balance and brightness, should you require them.

Having put the cameras through their paces, the Lumia 640 XL managed to deliver bright and crisp photos without a hint of haze or blurry edges in day-light condition. Noise is more of an issue in low light, but the camera does a pretty decent job in terms of managing light and maintaining details. Battery performance was impressive too, as it easily lasts for a day and a half from normal usage. Last but not least, we also ran synthetic benchmarks Antutu and Basemark X, where the phone scored 11,698 and 4,785, respectively.

By Ammar Uzair Aminuddin

TESTED & RATED

8.5_{/10}

HWM
MALAYSIA

Available at

PLAZA LOW YAT

THE GREAT OUTDOORS

Garmin vivoactive

AT A GLANCE

Wireless Sync

Yes

Battery Life

Up to three weeks (10 hours in GPS mode)

Display

1.13-inch color display

Display Resolution

205 x 148 pixels

Price

RM1,097.10



The vivoactive comes with a magnetic charger that effortlessly snaps onto the back of the watch.

CONCLUSION

The Garmin vivoactive is an excellent smartwatch for fitness junkies, but its high asking price could potentially be a little off-putting to some.

SPECIFICATIONS

Bluetooth Bluetooth Smart // **Battery** Rechargeable Lithium battery // **Input** Touchscreen, 2x physical buttons, 2x capacitive buttons // **Weight** 18g (w/o band), 38g (w/ band) // **Warranty** 1-year // **Contact** AECO Technologies (M) Sdn Bhd // **Telephone** (03) 9285 8062 // **URL** www.garmin.com

Garmin is no doubt a name that has, for over the past decade or so, become representative of GPS navigation systems. But as the years go by and as technology progressed, smartphones began to ship with GPS receivers of their own, and as a result, left Garmin with no choice but to diversify their portfolio and venture into a new frontier. So welcome everyone, to Garmin's latest innovation, the vivoactive smartwatch.

As its name suggests, the vivoactive watch is made with fitness aficionados in mind. The first thing you would notice about the vivoactive is its always-on, touch-sensitive color display which, we should probably mention, hardly comes by on a smartwatch. Sure, the display might have a lowly resolution of 205 x 148, but we're pretty sure it's one of the biggest contributing factors to the vivoactive's unparalleled battery life.

Garmin says the vivoactive's battery is able to last for three weeks on a single charge, or 10 hours with the GPS constantly

tracking your movement. While we weren't able to replicate the vivoactive's official battery life, we were, however, able to get through slightly over a week before needing to recharge the smartwatch. This was mainly after using the vivoactive to tell the time, and display notifications from our smartphone. Again, this is very uncharacteristic of a smartwatch, which often only lasts a day or two at best.

On the left and right sides of the vivoactive, you'll find two physical buttons. Tap on the left button and you'll activate the watch's backlight; while long pressing it will either turn the watch on or off. Tap the one on the right and you'll be greeted by the watch's app drawer, where you'll find a variety of in-built apps that can track your running, cycling, swimming, golfing, walking, indoor cycling, treadmill running and indoor walking activities.

There are also two additional capacitive buttons right below the display; the left one serves as a back button, while the one on the right brings up an

additional options menu when tapped.

The vivoactive has an impressive water resistance of 5 ATM or 50 meters, which means it would be more than happy to go out for a swim with you. We didn't manage to find a pool (or one that was deep enough) to test that proclamation out, but we did somewhat compensate for it by giving it a thorough wash under a running tap. And no, the vivoactive didn't go haywire afterwards.

Since the vivoactive is very much a fitness tracker at heart, we decided to drag our lazy selves out for a walk or two to test its tracking capabilities. The vivoactive's GPS initially took about two minutes to lock onto our position, with subsequent attempts taking about 30 seconds or less. Once we've established a stable GPS connection, we begin walking with the vivoactive actively keeping track of the essentials such as our speed, distance and time taken in the background. Nitty-gritty details like the amount of calories we've burnt, our average pace, and the route we've walked were all easily accessible through the vivoactive's Garmin Connect mobile companion app.

By Peter Chu



TESTED & RATED

8.5_{/10}

HWM
MALAYSIA

Available at

PLAZA LOW YAT

TAP FOR

GALLERY



THE ART OF SELF-DRIVING

BMW and Baidu to Launch Self-Driving Cars in 2015



BMW, in partnership with Baidu, will be releasing its first self-driving cars by the end of this year.

2015 is the year that many automobile companies are turning the idea of a self-driving car a reality. As you've no doubt read in the Think section of this issue, Audi and Baidu are close to making the Audi A7 Concept Driving commercially available around the world. Now, there's another German car company on the horizon that is looking to make a self-driving car: BMW.

Having first gone into partnership last year, both BMW and Baidu's Senior Vice President, Wang Jin, have announced that they are looking to launch the first consumer-ready self-driving BMW cars by the end of the year. Baidu, in particular, has been looking to beat Google to the finish line,

having already spent much time conducting extensive studies into the field of artificial intelligence and Deep Learning, as well as working closely with other technological companies like NVIDIA in order to create a brain for the self-driving car. Last year, Baidu invested US\$10 million (approx. RM37.3 million) into the Finnish mapping company IndoorAtlas, for the use of their expertise in data-mapping services.

Self-driving cars are slowly but surely becoming the new norm for cars on the road. However, laws and legislations in countries such as the U.S. and the U.K. still require that a person be seated in the driver's seat, in the event that something goes wrong with the self-piloting system.

RACE OF THE FUTURE

SpaceX is Building Tracks for Hyperloop Pod Races

Every time Elon Musk's name and his space company, SpaceX, come up in conversation or across the Internet, geeks and nerds get excited, and for good reason. Both the man and the company are the embodiment of the future, having pursued every aspect of science, technology and innovation.

One such future is the Hyperloop project, a Maglev (Abbreviation for Magnetic Levitation) public transportation system that could travel at 1,120km/h, blasting passengers through a tube at the speed of sound between two cities. To put things in another way; at that speed, you could travel between Kuala Lumpur and Sydney, Australia in less than four hours. Now, it seems that Musk has an additional plan for the technology: pod racing. As it turns out, Musk and SpaceX is looking to build a special Hyperloop track in order to host a series of Hyperloop pod races next year in June.

More specifically, Musk and SpaceX are looking to encourage development of Hyperloop systems, and to do that, they will be building a one-mile long test track for enthusiastic racers. Teams will be asked to build human-scale prototype pods, which will then be fired down the track, in order to find out which design works best for transporting people en masse.

"Teams will be able to test their human-scale pods during a competition weekend at the track, currently targeted for June 2016. The knowledge gained here will continue to be open-sourced," SpaceX listed on its website.



Come June next year, Elon Musk and SpaceX will be hosting the world's first Hyperloop pod races.

Q2X

JULY 2015 VOL 13 ISSUE 4

CHART YOUR OWN PATH

THE WITCHER 3: WILD HUNT, REVIEWED

NEWSWIRE

EXCITING
ANNOUNCEMENTS
FROM E3 2015

FEATURE

MARCH OF THE
STEAM MACHINES

PEDAL TO THE METAL

Logitech Unveils the G29 Driving Force Racing Wheel for PS4 and PS3

No matter how well-designed and developed racing games are, you simply would not be able to enjoy them to the fullest just by using a conventional DualShock controller – which is where Logitech's G29 Driving Force racing wheel comes in.

Logitech says that the G29 racing wheel is able to simulate and replicate the sensations you would feel while driving a car, including that of oversteering and understeering. As a matter of fact, even the virtual potholes and the weight of your car shifting mid-corner are also accurately accounted for.

All the necessary controls you will need in and out of your

race are conveniently placed on and around the face of the G29 Driving Force racing wheel, and it includes a directional pad, a semi-automatic paddle shifter and the familiar suite of console controller buttons. The full-bodied racing experience is further supplemented by the presence of LED indicator lights placed right above the center of the G29, which visually tells you the best time to shift gears.

Rounding off the Logitech G29 is a separate floor pedal unit that consists of a clutch, brake and accelerator pedal. They work and feel exactly how like a real car's does, especially the brake pedal, which is said to adopt the

performance of a real-life pressure-sensitive brake system to make the simple act of breaking as realistic as possible.

You won't have to worry about wrecking the G29 either, as placed within its wheel shaft are solid steel ball bearings, and its pedals and paddle shifters are made entirely out of stainless steel. Furthermore, the G29 can be fastened onto a table or racing seat to hold it in place while you pull off the most reckless and jarring of racing maneuvers.

The Logitech G29 Driving Force will be available in September for the PS4 and PS3. Its price will only be announced as its release date draws closer.



DOOMSDAY BECKONS

Bethesda Showcased Doom Reboot at E3 2015

The *Doom* franchise is getting a well-deserved reboot, and judging from the gameplay trailer, it's going to be bloodier and more barbaric than ever.

Before we get into the gory details, we have to say that the game looks stunning despite it still being in its developmental stage. The blood-splattered, doom-and-gloom (pardon the pun) environments showcased during the trailer were incredibly realistic, and it certainly lives up to the stringent graphics standards of modern-day blockbuster games. You have id Software's brand new id Tech 6 game engine to thank for that.

As we've mentioned earlier, next year's *Doom* reboot is set to be just as violent, if not more, than its predecessors. Players will be able to perform brutal melee attacks should they deem blasting the faces of demons at point-blank with a double-barrel shotgun too merciful. Such melee attacks include splitting demons into half using a chainsaw, ripping their limbs off their body, and curb-stomping their heads till it explodes. Yummy.

These unadulterated acts of violence are then sugar-coated with bucket loads of gore and gib that spurts and flows out of their mangled bodies like there's no tomorrow.

Don't expect the game to be a walk in the park either, as id Software's executive producer Marty Stratton has intentionally mentioned during E3 2015

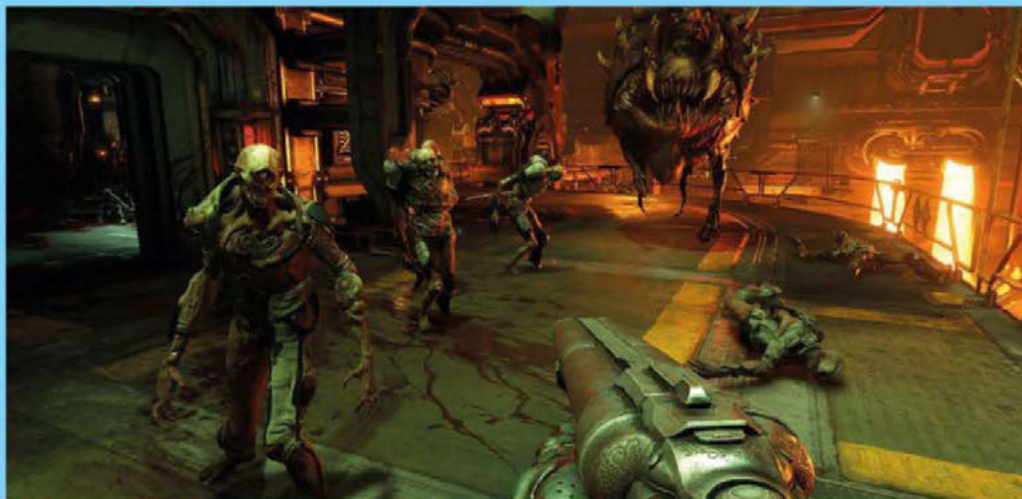
that the game is going to be challenging.

"I've seen people and even had people say, 'Oh, that looks easy.' That is not easy. The game is a challenging game, it's like [the original *Doom*] in that respect," Stratton said.

If you prefer killing other marines instead of demons, you'll be glad to know that *Doom*

will feature an arena combat mode that is set in the depths of Hell and the UAC facility on Mars. Also included in the game is a modding tool called *Doom Snapmap*, which allows you create custom maps of your own.

You will be able to embark on your demon-killing spree when *Doom* launches for the PC, PS4 and Xbox One in Spring 2016.



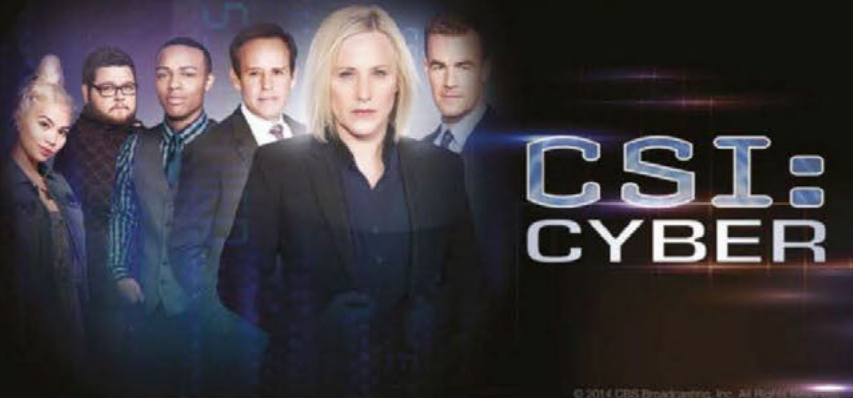
MON



FINAL BATTLE
FALLING SKIES

TM & © 2015 Turner Entertainment Networks, Inc. A Time Warner Company. All Rights Reserved.

TUE



**CSI:
CYBER**

© 2014 CBS Broadcasting, Inc. All Rights Reserved.

WED



SEASON 6
NCIS:

© 2013 CBS Broadcasting, Inc. All Rights Reserved.

THU



JAMES SPADER
THE BLACKLIST
SEASON 2

© 2014, 2015 Sony Pictures Television Inc. and Open 4 Business Productions LLC. All Rights Reserved.

© 2010 Sony Pictures Television Inc. All Rights Reserved. | AXN is a registered trademark of AXN Network, Inc. | © 2013 Sony Pictures Television Inc. All Rights Reserved.

FRI



HANNIBAL
SEASON 3

The thrill of
the chase.
Weeknights
on AXN.

Mondays - Fridays
10pm



AXN (Ch 701) is available on Astro
and in HD (Ch 721). To upgrade,
tune in to Astro Service Portal on
Ch 200 or visit: www.astro.com.my

#axnasia

ON CLOUD NINE

Square Enix Announces Remake of Final Fantasy VII

After almost what appears to be two whole decades, fans of the *Final Fantasy* series – especially *Final Fantasy VII* – are finally having their longstanding wish come true in the form of a *Final Fantasy VII* remake, courtesy of Square Enix.

The company made the announcement at its E3 2015 showcase through the help of a pretty cinematic trailer which, well, really doesn't say much about what exactly the game entails. But according to a GameSpot interview with director Tetsuya Nomura, there is a possibility that the game's storyline would deviate slightly from that of the original, as there is already an 'enhanced PC' port of *Final Fantasy VII* for iOS and PS4 that's slated for release this year end.

"We've announced an HD port version on the PlayStation 4, and then we have the remake coming to PS4," Nomura said through a

translator. "You'll have this extremely, very, very pretty *FFVII* existing on the same plane. We feel that if that happens, it's like, why have the same exact game?" he said.

"We think that if a game is on a certain platform and that platform becomes obsolete, then we'd recommend playing the new port version," Nomura added.

Apart from that, other details such as the platforms that the game will be made available on are still scarce. The only thing we have to work with for the time being, are the words 'Play it first on PlayStation' that appears at the end of the trailer, which indicates that the game will likely be available for other platforms like the PC and Xbox One.

Square Enix hasn't provided a release date either, only mentioning within their official press release that they have simply 'begun production' on the remake. As a result, the question of just how long it would take before the finished game sees the light of day is pretty much anyone's guess at this point.



GEARING FOR WAR

Microsoft Announced Gears of War 4 and Gears of War: Ultimate Edition at E3 2015

Microsoft definitely has big shoes to fill with *Gears of War 4*, especially after acquiring the *Gears of War* franchise from its former owner, Epic Games, about a year and a half ago.

Fast forward a year and a half later, and we have Microsoft showcasing the first gameplay

demo of *Gears of War 4* at E3 2015. Interestingly, *Gears of War 4* doesn't seem to be following through on series protagonist Marcus Fenix's story – as the gameplay trailer features a new male and female character, as well as aliens that look nothing like the Locusts from previous games.

Nevertheless, at least the series' mainstay weapons such as the Snub pistol, Gnasher shotgun and the Lancer assault rifle have been retained in *Gears of War 4*.

Gears of War 4 will be released sometime during the 2016 holiday season but in the meantime, you can always set your sights on *Gears*

of War: Ultimate Edition, which will be arriving on the Xbox One very soon – like August 25 soon.

Gears of War: Ultimate Edition is essentially the first *Gears of War* game but with a complete visual overhaul to bring about 1080p graphics, as well as 60 fps gameplay. According to gaming news site Polygon, other graphical enhancements include improved lighting effects, as well as increased texture quality. Nothing has been changed in the storyline department; the game still revolves around the Delta Squad troops trying to save mankind from the Locust Horde on planet Sera.

The good news is, if you can't wait for *Gears of War: Ultimate Edition* to be officially launched on August 25, you can opt to have a little taste of it through its public beta version that is currently available on the Xbox One.



MARCH OF THE STEAM MACHINES

V i d e o G a m e ' s N e x t F r o n t i e r

By *Peter Chu*

One shouldn't be confusing mini PCs with Steam Machines. **Yes, they both share similar compact form factors but apart from that, they are entirely different entities.** While mini PCs are nothing more than tiny – and unfortunately often times anaemic – computers, Steam Machines are meant to be the full-blooded desktop-class gaming rigs sans the gargantuan-sized chassis. **But they're more than just pint-sized brutes, as they are out on a mission to revolutionize the way we play video games.**



STEAM MACHINES 101

So what exactly are these Steam Machines, you might be asking. Well, they aren't any hard and fast rules on what constitutes a Steam Machine, or how they should look or perform, but what they all share in common is the SteamOS operating system they run on. SteamOS is pretty much a Linux-based operating system at heart, but has been specifically customized around Steam's Big Picture interface to make it compatible with the huge HD televisions of your living room.

The purpose of Steam Machines then, according to Valve, is to "provide the best living room access to the greatest games and user-generated content available." To put it bluntly, Valve wants you to get out of the man-cave where you and your gaming rig are always cooped up in, and get your game on in the living room instead.

Pay a quick visit to Valve's dedicated Steam Machine site and you'll notice there are already quite a number of companies who have made, or are in the process of making, Steam Machines of their own.

Such companies include mainstream PC manufacturers like ASUS, Alienware, Gigabyte and Zotac; as well as custom PC builders such as SYBER Gaming, Falcon Northwest and Origin, the latter three of which are based in the U.S.

As mainstream brands like Alienware have an obligation to cater for a wider consumer base compared to their custom PC counterparts, their Steam Machine offerings are priced more sensibly. Take the Alienware Steam Machine as an example. Its base model starts at a price of just US\$499 (approx. RM1,860), while the top-spec model will

cost you a slightly higher US\$649 (approx. RM2,414). In return, you'll get a machine equipped with an Intel Core i7-4765T processor, a modified NVIDIA GeForce GTX 960M GPU, 8GB of DDR3 memory, a 7,200RPM 1TB hard drive and a Steam Controller – Valve's rendition of the tried-and-proven PlayStation or Xbox controller which, instead of relying solely on buttons and analog sticks, also makes use of two touchpads to emulate a keyboard and mouse.

If you're looking for a Steam Machine that goes all out on hardware, you'd have to check out Falcon Northwest's Tiki Steam Machine as it packs one heck of a punch, especially so when you decide to go crazy with its completely customizable specifications list.

For a cool US\$4,999 (approx. RM18,600), you'll get a Tiki Steam

Machine that sports an Intel Core i7-4790k processor, an NVIDIA GeForce GTX Titan GPU, 16GB of DDR3-1866 memory, and 8TBs of storage space. The best part? All of said hardware is fitted into a chassis that is just 4-inches wide, and 13-inches tall.

If that's a little too excessive for your tastes (and wallet), have a look at SYBER Gaming's Steam Machine X. It's much more down to earth, and yet still very well capable of carrying its own weight. It's equipped with nothing less than an Intel Core i7-4790 processor, a NVIDIA GeForce GTX 980 GPU, 16GB of DDR3-1600 memory, and a 1TB 7,200RPM hard drive – all of which are neatly packed into a chassis that's only 13-inches long and wide, and 3-inches thick. You can expect to pay a more palatable US\$1,419 (approx. RM5,323) for the Steam Machine X.

- 1 Alienware Steam Machine
- 2 Steam Link
- 3 Zotac Steam Machine SN970
- 4 SYBER Gaming Steam Machine



1



3



2



4



- 5 ASUS ROG GR8S
- 6 Origin OMEGA Steam Machine
- 7 Falcon Northwest Tiki Steam Machine
- 8 Gigabyte BRiX Pro

FULL OF HOT AIR?

The first batch of Steam Machines are set to hit store shelves over in the U.S. on November 10 later this year, with Alienware and SYBER Gaming being the first two companies confirmed to have their Steam Machines displayed on those shelves. We've already talked about what they are capable of in the first half of this feature, which brings us to the all-important question of whether it would be worthwhile investing in them.

We're sad to say that if you already have an almighty gaming rig sitting comfortably in your bedroom, chances are you wouldn't find a Steam Machine to be of much use. If you're buying into Valve's idea of getting a Steam Machine just so you can play your favorite games on the massive HDTV in your living room, you probably should invest US\$49.99 (approx. RM187) for the

Steam Link streaming console instead. It allows you to stream games wirelessly from your gaming rig onto your TV in 1080p at 60fps, negating the need for you physically connect your rig to your TV, or a Steam Machine, for that matter.

If you don't have a gaming rig and you're looking for one in the form of a Steam Machine, you'll have to bear in mind that because it runs on Linux, only a limited selection of games on the Steam Store will be compatible with it. A quick search through the Steam database will show you that there are only 1,242 games (at the time of writing) that are compatible with the SteamOS operating system, a stark contrast to the 5,500+ games that are available for Windows. Mind you, the 1,200+ games do not include triple-A titles like *Grand Theft Auto V*, *The Witcher 3: Wild Hunt*,

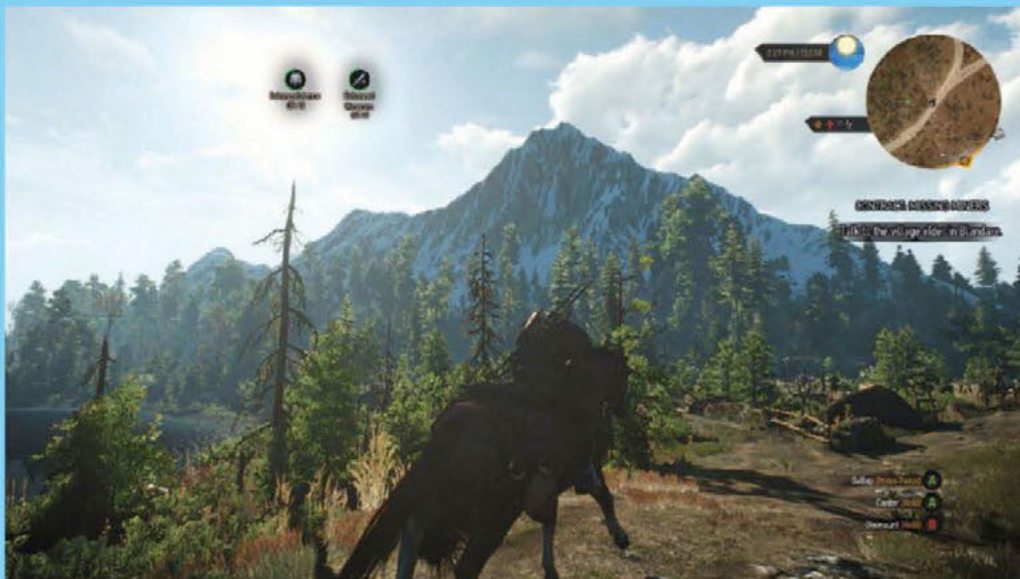
and *Assassin's Creed Unity*. You should definitely think thrice about getting a Steam Machine if you wish to use it for devouring blockbuster titles.

Also, Steam Machines are not much of a replacement for consoles either.

Also, Steam Machines are not much of a replacement for consoles either. Sure, its graphics would be better, but you will be losing out on the high-profile, console-exclusive games, such as the *Halo* series on Xbox, and the

Uncharted series on PlayStation. As a matter of fact, the triple-A titles that we've mentioned earlier that are not available on SteamOS are all readily available on consoles. So unless a game like *Half-Life 3* (wishful thinking) becomes a SteamOS exclusive, Steam Machines will have very little going for it as far as games are concerned. What's the point of having a hardcore gaming machine when there are hardly any games that it can play?

With that said, Steam Machines are still very much at its infancy stage. They have plenty of room for improvement, many loopholes to fill, and many overarching doubts to address. Our advice to you – should you choose to heed it – would be to wait a little while more and let the entire notion of Steam Machines develop further, before deciding whether or not to take a leap of faith.



SILVER FOR MONSTERS

The Witcher 3: Wild Hunt

THE HUNTER AND THE HUNTED

A world of fantasy is one that seems to follow your typical fantasy setting: magic is in abundance, monsters roam the lands, looking to kill or be killed and, as always, a beautiful and ravishing maiden awaits the hero's embrace at the end of it all.

Mercifully, the world of *The Witcher* series weaves a tale beyond the traditional fantasy standards. It takes its cue from other titles like *Game of Thrones* and the long-standing *Dungeons & Dragons* universe; Kingdoms wage war with each other, while their kings sanction assassinations of other kings and forge shaky alliances with others. Sorceresses act as consulars to kings, serving to advise and manipulate the situation to their benefit, only later to find themselves the betrayed.

As with the previous two games in the series, you resume the role of Geralt of Rivia. With your twin blades of steel and silver, you scour the lands, searching for paying contracts and monsters to kill. Your pre-possessed hunting skills are second to none, and your experience in the realm

of the supernatural has turned you into a skeptical but logic-laden hunter. But there is one hunt that has Geralt occupied, more than any other Witcher contract: The Wild Hunt, and along with it, the search for his former lover, Yennefer, and adopted daughter, Ciri.

A FATHER'S LOVE

Compared to the second installment, *The Witcher 3: Wild Hunt* is CD Projekt RED's most ambitious and graphically engaging title to date. The world of *Wild Hunt* is divided in multiple zones, spanning across the Northern lands of White Orchard and Velen, all the way across the sea to the islands of the Scottish-esque Skellige Isles.

One very important, if not obvious, improvement to the game that you will notice straight away is the way Geralt's Witcher Senses can be used. Back then, these senses could only be used intermittently, and only as long as his medallion was fully charged. In this installment, the developers have made some changes, enabling players to use it as an everyday tool, which allows Geralt to sense his surroundings for enemies and clues.

The greatest improvement to *Wild Hunt*, however, lies in its player interactions and combat mechanics. Players can now choose between jogging or sprinting from one end of the map to another, or simply ride on your trusty steed (named not-so-valorantly as Roach). Combat mechanics now possess a greater level of fluidity, but unlike before, a certain level of finesse and control is required, as the hack-and-slash method usually ends up with Geralt being killed in action. Even the spells in-game have been given a facelift. Through the right channels and upgrades, players can either choose to burn the enemy with a flash, or through a continuous stream of fire.

by John Law



Yeap, you actually can climb up that mountain. We've tried it.

AT A GLANCE

Genre
Action RPG

Developer
CD Projekt RED

Publisher
CD Projekt RED

Platform
PC (Tested), PS4,
Xbox One



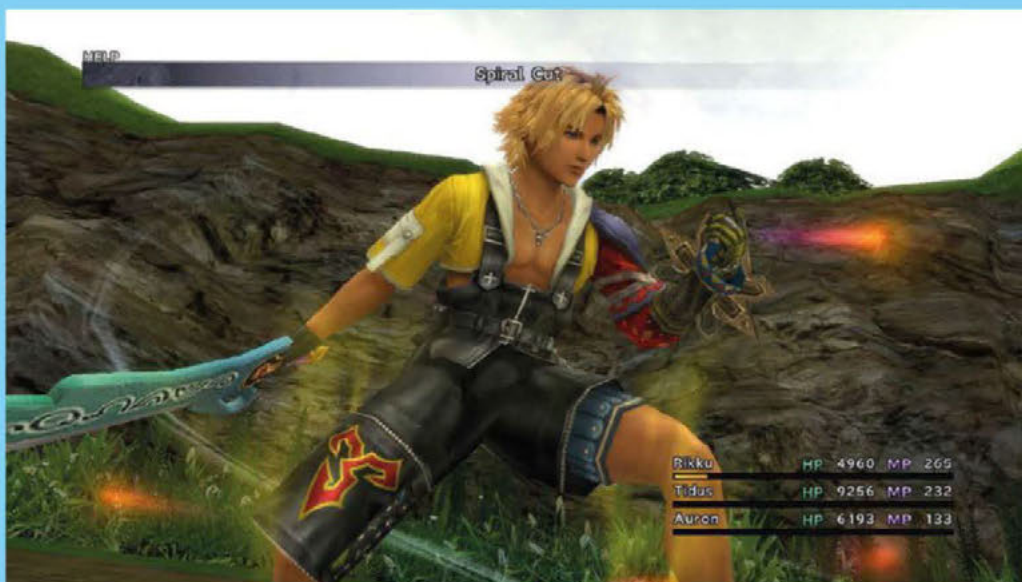
CONCLUSION

The world of The Witcher 3: Wild Hunt is huge and rich with interaction, along with a combat system that is equally so.

TESTED & RATED

9.0 /10

HWM
MALAYSIA



REMASTERED FANTASY

Final Fantasy X/X-2 HD Remaster

TOO BRUTAL? HARDLY

At the rate that things are going, it would certainly be safe to say that it would only be a matter of time before all of your favorite games were put through the increasingly popular remastering treatment. Square Enix's *Final Fantasy X/X-2 HD Remaster* was released for the PS3 and PS Vita early last year, followed by the PS4 this year, and boy does it look like a breath of fresh air.

The blockish, angular character models that once inhabited the original PS2 game 13 years ago have been smoothened out to comply with modern-day video game standards, while environmental textures, such as foliage and water, have been remodeled from the ground up to showcase an entirely new level of detail. The game definitely lives up to the HD moniker in its name.

Both the storyline and core gameplay mechanics of *Final Fantasy X* and *X-2* have been left mostly untouched, which is great since it didn't exactly need any fixing to begin with. As a result, the game still adopts the Conditional Turn-Based Battle system, where you can take your own sweet time to

strategize your next move, unlike in *Lightning Returns: Final Fantasy XIII*, where you're expected to be on your toes at all times during battle as the enemies will not hesitate to unleash a beating upon you.

Unfortunately, the *HD Remaster* isn't without its flaws. The English voiceovers remain unchanged, which can sound a little mechanical and emotionless at times – as though the voice actor was reading directly off the script – while character movement during cutscenes have the tendency to appear robotic and awkward. There isn't an option to switch to a Japanese audio track (Japanese version sold separately), so you'll have to bear with the verbal monotony throughout the game. But what there is though, is the choice of choosing between the game's traditional soundtrack and its modernized counterpart, which is a nice touch.

Similar to what several video gaming sites have pointed out, we too have noticed that the game has a faulty Random Number Generator (RNG) which, as a result, renders all of the supposedly 'random' monster encounters throughout the

game into 'fixed' ones. To see it with your own eyes, all you have to do is to load your last checkpoint and take note of the first battle you encounter – chances are you will face the exact same monsters who would attack in the same order and drop the exact same loot (if any) should you load from the same checkpoint again. Let's hope a patch will be issued to sort this matter.

With that said, we would be more than happy to recommend this *HD Remaster*, even if it was solely on the basis that it offers two definitive *Final Fantasy* games at the price of one. But the fact that it's also beautifully remastered helps to sweeten an already tantalizing deal.

by Peter Chu



The art direction of *Final Fantasy X/X-2 HD Remaster* is nothing short of a masterpiece.

AT A GLANCE

Genre

Role-Playing

Developer

Square Enix, Virtuos

Publisher

Square Enix

Platform

PS4 (Tested), PS3, PS Vita



CONCLUSION

Apart from the wonky RNG, we can't seem to find anything else that's glaringly wrong with this HD Remaster.

TESTED & RATED

8.5_{/10}

HWM
MALAYSIA



DANGER! DEAD INSIDE!

State of Decay: Year-One Survival Edition

THE DEAD, REANIMATED

State of Decay was originally launched for the Xbox 360 in 2013. It was a pretty good game, rough around the edges (tons of bugs, stilted animation) but it was undeniably fun. This Xbox One version is a compilation of the original plus expansion packs.

State of Decay is an open world, survival game with zombies. Breakdown is a military-themed expansion set in another town. Guns come into play more in Breakdown since you're leading a platoon of soldiers but for the most part, gameplay is similar though you can request supplies from HQ to help out. Lifeline is the other expansion included on the disc, though it's mainly a survival mode of the original without a storyline, which isn't too compelling.

Since the game was originally an Xbox 360 title, one would reasonably expect improvements and optimization for the Xbox One compilation. That's not the case.

The weird animations present in the original still haven't been polished. It's still disjointed and cartoony as ever. But that's the least of the game's problems. Frame rate stuttering is still as bad too. It's nowhere near a constant 30fps, though at times it can jump higher than that.

There are also a multitude of bugs (in all three modes), but the biggest one has got to be the clipping issue. Zombies routinely pass through closed doors and walls with no issues, which defeat the purpose of building defenses.

The visuals have taken a bit of a step up though; miscellaneous effects like sun rays shining through gaps in the trees have been added. They do spruce up the game a bit but it doesn't hide the fact that the game still looks as it did on the Xbox 360. Textures are still muddy and dark, there's a weird sheen to indoor objects, there's horrible pop-in of zombies on both locations and zombies lack

variety. It's basically the same thing with the audio. Everything is lazily reused from the Xbox 360 version.

It's a shame really, as the core gameplay buried under the issues is really fun. There's tons of content to play through and most of it is enjoyable but the technical issues will undoubtedly alienate new gamers on the Xbox One version thinking that it's a polished product when it's not.

by Salehuddin Husin



If you own the original game on the Xbox 360, you get a discount if you buy the Xbox One version.

AT A GLANCE

Genre
Open World RPG/Simulation

Developer
Undead Labs

Publisher
Microsoft

Platform
PC, Xbox One (Tested)

CONCLUSION

Get the PC version if you can. It has all the content, none of the technical issues.

TESTED & RATED

5.0_{/10}

HWM
MALAYSIA

aperture



July 2015 Vol 7 Issue 11

STREET SMART

HWM STREET PHOTOGRAPHY WORKSHOP

NEWS

**Sony
launches
trio of 4K
cameras**

SPECIAL

**Hands-on with
Olympus' OM-D
E-M5 Mark II and
STYLUS TG-860**

CONTENTS

149 // NEWS

Sony announces new a7R II, RX10 II, and RX100 IV.

150 // NEWS

Canon's bolder, faster new EF50mm f/1.8 STM lens.

150 // NEWS

Leica Q makes official debuts in Malaysia.

151 // LEARN

Get accurate colors on your monitor with the Datacolor Spyder5PRO.

152 // SPECIAL

We joined Olympus for a photography trip to Cherating.

154 // SPECIAL

Here's what went on at the HWM Street Photography workshop.

156 // TEST

A closer look at the Panasonic LUMIX GF7.



Compact is the New Full-Frame Killer

Why 'compact is the new full-frame killer', you ask? Compact-sized cameras are slowly but surely becoming dominant in the photography landscape, as both Sony and Leica recently launched their respective full-frame compact cameras, each equipped with features that serious photographers would appreciate. Needless to say, we were impressed by the high-end features that both models have.

For Learn this month, we will show you how to perform monitor calibration using the Datacolor Spyder5PRO. We also tested out the new M.Zuiko PRO lenses and STYLUS TG-860 at an Olympus photography trip. As for camera review, we took the Panasonic LUMIX GF7 for a spin to find out its 4K video capability.

For any comments or feedback, you can always head on over to forums.hardwarezone.com.my and share your thoughts with us.

Ammar Uzair Aminuddin
HWM Malaysia

aperture uses the ASUS ProArt PA238Q monitor
for all its image editing and viewing

ASUS

TRIO OF 4K CAMERAS

Sony Announced a7R II, RX10 II, and RX100 IV with 4K Technology

Sony proves that it is still at the top of its game in image sensory technology by announcing three high-end cameras, each with their own set of advanced features. The a7R II, RX10 II and RX100 IV are capable of 4K video recording for all types of user, from amateurs to professionals. It definitely looks like Sony went all out with these refreshed models.



a7R II

Touted as the latest Alpha 7-series camera, the a7R II features the brand new back-illuminated, full-frame Exmor R sensor with a resolution of 42.4 megapixels. The a7R II also performs great with an expanded ISO of 102,400, which makes it as good as the a7S in terms of low-light sensitivity. Also new to the camera is the astounding 399 phase-detection autofocus points. It also inherits some DNA from the previous a7 II, such as a robust chassis, 5-axis image stabilization rated at 4.5 stops, as well as BIONZ X image processor.

What is most notable about the a7 II is that it can capture 4K video internally onto memory cards using the 100Mb/s XAVC codec. Unlike its predecessor, this camera offers more robust picture profile control in video mode, including S-Log2. Also, thanks to its high-resolution sensor, the a7R II can record 4K video without pixel binning and at 30 frames per second.



RX10 II

The RX10 II broke the tradition of Sony's point-and-shoot camera, as it is the first CyberShot camera that can record 4K video, thanks to its 1-inch 20.2-megapixel 'stacked' Exmor RS CMOS sensor. It uses the same 24-200mm f/2.8 Zeiss fixed lens as the RX10, featuring continuous shooting up to 14 fps and an ISO sensitivity of up to 12,800.

Apart from its ability to record 4K video (up to 29 minutes in length), the RX10 II can also do high-speed video recording up to 960 fps. That is equivalent to 40 times slower than other cameras in the same category.



RX100 IV

Smallest among the newly-launched Sony cameras, the RX100 IV shares the same image sensor and processor as the RX10 II, but instead sports a Zeiss Vario-Sonnar 24-70mm f/1.8-2.8 lens in a smaller form factor. It can perform continuous shooting up to 16 fps, along with ISO sensitivity of 12,800.

Like the a7R II and RX10 II, this camera can also record 4K video, but up to five minutes in length. Another new feature on this camera is its super slow motion mode, which enables users to record slow-motion video at up to 960 fps.

The Sony a7R II, RX10 II and RX 100 IV will be going on sale with a price tag of about US\$3,200 (~RM12,030), US\$1,300 (~RM4,887) and US\$1,000 (~RM3,759), respectively.

NIFTY FIFTY

Canon Announced the RM499 EF50mm f/1.8 STM Lens

Canon Marketing Malaysia recently launched its new 'nifty fifty' lens: the EF50mm f/1.8 STM, an affordable and one of the most versatile prime lenses in the market. It is equipped with Canon's Stepping Motor (STM) drive technology and supports the EOS Movie Servo AF function for smooth and silent continuous AF during video recording.

Unlike its predecessor, the all-new EF50mm f/1.8 STM lens has a metal mount and boasts an improved build quality, including

a new focus ring placement that provides photographers with the most compact Canon EF50mm lens ever. Apart from that, it also features 7-blade aperture, as well as Super Spectra lens coating that functions to suppress lens flare and ghosting for increased contrast and more color-neutral imagery.

The EF50mm f/1.8 STM is a welcome addition for portrait photographers, and is already available for a recommended retail price of RM499, inclusive of GST.



Thanks to enhanced autofocus and its svelte profile, this lens is ideal for everyday shooting in a wide variety of conditions.



Sunil Kaul (left), Managing Director of Leica Camera Asia Pacific, and Ming Thein, celebrity photographer, posed with the new Leica Q.

FULL-FRAME KILLER?

The New Leica Q System Officially Unveiled in Malaysia

If you are a photography enthusiast, you will surely be familiar with Leica cameras. Just recently, the company officially launched its new full-frame compact camera, known as Leica Q. The launch was held with the purpose of giving media, photographers and dealers a chance to try out the new full-frame killer.

The Leica Q is permanently attached to a 28mm Summilux f/1.7 ASPH lens, making it one of the widest and brightest fixed-lens compact cameras in the market. It sports a 24MP image sensor that can be set anywhere from ISO 100 through ISO 50,000. It also offers 10 fps burst shooting capability, even when capturing full-resolution DNG images, and features an EVF supplemented by a large 3-inch rear touchscreen.

Not only that, it has an auto/manual switch embedded into the focus ring, and is capable of incredible AF accuracy even in low-light conditions.

If you want a tighter field of view, you can do so by adding the 35mm or 50mm cropping rings to the lens. The Leica Q is also well-connected, offering both Wi-Fi and NFC, and has a dedicated Leica smartphone app for remote shooting and image viewing. As for video recording, the camera is able to record Full HD video at either 30 or 60 fps.

In short, the Leica Q is a great camera for grabbing fast-moving action, as well as landscape scenery. It will be available from mid-June onwards at all Leica Stores and Leica boutiques for a recommended retail price of RM16,500, inclusive of GST.

BEST VIEWING EXPERIENCE

Get precise, accurate colors on your monitor with Datacolor Spyder5PRO.

by Ammar Uzair Aminuddin

Whether you are a professional photographer, graphic designer, 3D artist, or even an average Joe, image quality and color accuracy are essential. If your display looks a little off in terms of color reproduction, then a proper monitor calibration will need to be done. This is to ensure that color appears accurate, and fine details and highlights are achieved to produce the best results for editing and viewing both photos and videos.

There are two ways to perform a monitor calibration: by eyes or by using a color calibration device. We recommend the latter as the color calibrator is easy, hassle-free and will help determine the optimal settings for you to view content the way they are meant to be seen. For this example, we will be using the Datacolor Spyder5PRO that will outshine your monitor's factory preset modes.

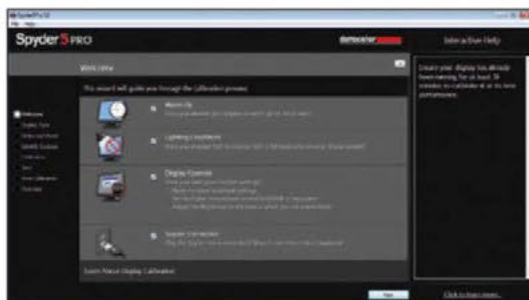
1. PREPARE THE MONITOR

First, please ensure that the monitor has been turned off for at least half an hour before we begin with the process. Then, reset all the monitor settings, set the color temperature to 6500K (or its equivalent), and adjust the brightness to a comfortable level.



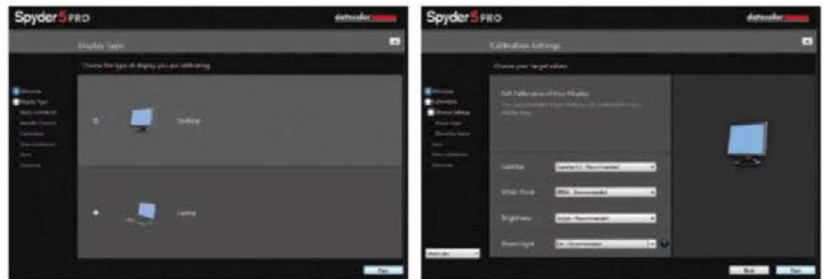
2. INSTALL THE SOFTWARE AND CONNECT THE COLORIMETER

The installation process is simple and easy. Follow the instructions in the welcome card to download and install the Spyder5 software. After that, take off the cap from the colorimeter, which also acts as a counterweight, and connect the USB plug to the computer's USB port. Once that is done, place the colorimeter on the screen, with the Spyder5 logo facing in your direction.



3. MAKE YOUR SELECTIONS

Upon launching the software, you will be greeted with a welcome screen and will be required to complete four tasks before proceeding to the next step. Then, answer accordingly about the display that you are currently calibrating.



Next, you will need to choose the calibration settings from Gamma, White Point, to Brightness. If there's any adjustment necessary, you can do so by clicking on the 'Change Settings' tab in the lower-left corner. If you choose the 'Room Light On - Recommended' option, you then need to ensure that there is no direct light hitting the display. Following that, the software will recommend settings based on the room's ambient light level.



4. LET THE CALIBRATION BEGIN

Once you're ready for calibration, the software will show you where to place the Spyder5Pro colorimeter on the display. You are advised to tilt it slightly backward for a seamless calibration process, which will take approximately five to six minutes to complete.



5. SAVE THE NEW MONITOR PROFILE

After the calibration process is completed, you can save the profile and then set a reminder for the next calibration. We recommend doing it once every month.

ENG TONG SYSTEMS SDN BHD (03) 6143 5999

MOVING INTO A MIRRORLESS WORLD

Hands-on with the Olympus OM-D E-M5 Mark II and STYLUS TG-860.

by Ammar Uzair Aminuddin

Last month, we were invited to join Olympus's photography trip in Cherating, Pahang. The objective behind this photography-centric trip is to experience the latest OM-D E-M5 Mark II together with its PRO lenses, and the new tough compact camera, known as STYLUS TG-860.

We were equipped with both the OM-D E-M5 Mark II and the STYLUS TG-860 throughout the trip. For those who are unfamiliar with these two cameras, the E-M5 Mark II is the company's latest flagship camera. It is the first OM-D camera to feature the world's most advanced 5-axis image stabilization technology. The STYLUS TG-860, on the other hand, is the latest tough compact camera from Olympus that comes equipped with 'action cam' features.

Like other OM-D cameras, the E-M5 Mark II boasts a 16MP image sensor, retains the same TruePic VII processor, is weather-sealed, and has the widest range of lenses for its class. As for the tough STYLUS TG-860, it has all the elements as its name suggests, from build quality to features. However, unlike other STYLUS cameras, it lacks a touchscreen display that can ease navigation and photo playback.



A group photo of the media and the Olympus team before kickoff.



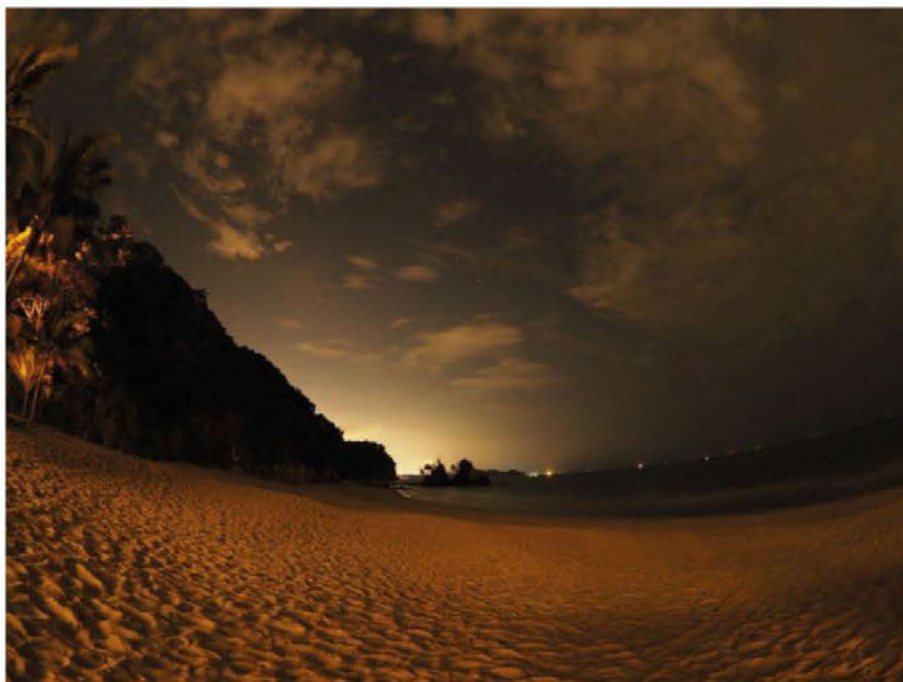
During our time with both cameras, we found the two Olympus cameras to be highly responsive, offering numerous features that are normally not found on other cameras, even DSLRs. We previously reviewed the E-M5 Mark II in our previous issue, so we were already familiar with the capabilities of its image stabilization system, OM-D Movie function, and Hi-Res Shot mode.

But that's not all, as there are more features that we found useful, such as Live Time, Live Composite and Live Boost 2. We were assigned to make use of these features to shoot the Milky Way and star trails as the first tasks for this trip, and the session was guided by local astrophotographer W.K. Liew. What's great about these three modes are that they enable you to see what's on the viewfinder or display in low light before shooting commence. As such, it is a lot more hassle-free compared to the traditional method.

The second task of the trip is to test out the latest M.Zuiko PRO lenses: the M.Zuiko ED 40-150mm f/2.8 PRO and M.Zuiko ED 8mm F1.8 Fisheye PRO lens. Both were excellent in their own right, but the one that impressed us most is the 40-150mm f/2.8 lens. With a constant wide aperture, this lens definitely delivered clean bokeh and superb sharpness, even when shooting long-distance subjects, thanks to the

5-axis image stabilization system. Also, there's an optional teleconverter if you require a longer focal length.

Here are some sample photos that were taken using the E-M5 Mark II together with the M.Zuiko PRO lenses:



Lastly, the task that was assigned to us was to make use the 'action cam' features on the STYLUS TG-860. To activate the Sportcam mode, you only need to point to it on the mode dial. This tough 16MP compact camera has the ability to record Full HD video up to 60 fps. The quality of the video recording is similar to an actual action camera, producing sharp, detailed video footage. Also, the camera is quick to refocus as the scene changes. And that's not all, as it can also record slow-motion video up to 480 fps, but in lower resolution.

The STYLUS TG-860 also has GPS and Wi-Fi support, which were not available in previous models. With such features onboard, you can now shoot, share and transfer photos instantly via the free OI Share app. The pairing process is simple and quick, as you only need to scan the QR code on the camera screen to pair your smartphone with the camera. In the same app, you will be able to do remote shooting.

At the end of it, we found both cameras to be highly responsive and offer plenty of features that make photography fun and easy.

Here are some sample photos that were taken using the STYLUS TG-860:



LEARN FROM THE PRO

HWM Street Photography Workshop, featuring S.C Shekar.

by Ian Chee



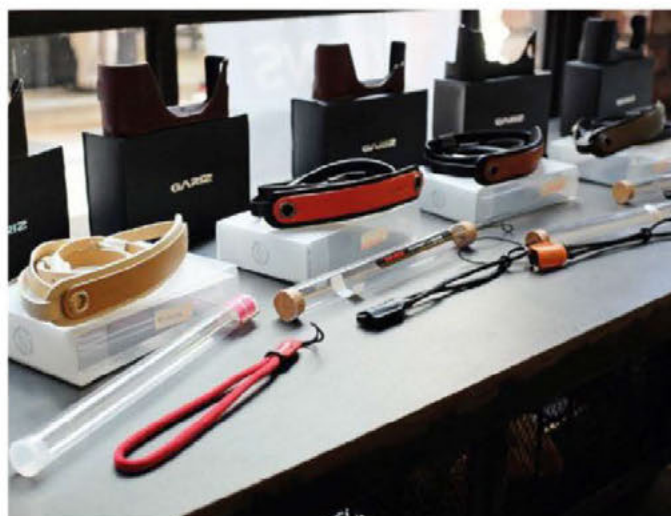
The month of June saw the first HWM Street Photography workshop. Sponsored by FUJIFILM and WD Malaysia with YL Camera as the organizing partner, the workshop took place on Saturday, June 13 at Tous Les Jours, Empire Damansara.

As the main and gold sponsors, FUJIFILM and WD Malaysia respectively showcased a number of their products. FUJIFILM had a trio of the new X-T10 cameras, while WD brought along its My Passport Wireless and My Passport Pro portable hard drives.

Participants who made it early to the workshop took the opportunity to try out some of the features of the X-T10, introduced to them by Kelvin Ooi, Marketing Manager, Imaging Solutions, FUJIFILM Malaysia.



The content of the goodie bags that were given out to each of the participants.



There was also a lineup of accessories on display by our organizing partner, YL Camera.



S.C. Shekar sitting in with the crowd, explaining the background behind some of his shots.



An intimate gathering of 30 participants graced the event, eager to take in all the tips and tricks that they can from S.C. Shekar, the speaker of the day. An award-winning photographer with over 20 documentary photography books to his name, Shekar talked about the experience throughout his photographing life, and how he got acquainted with his first FUJIFILM camera, the X30. His journey has taken him to places including India, Indonesia and Myanmar, and with every photo he took, he explained in fair amount of detail where he was,

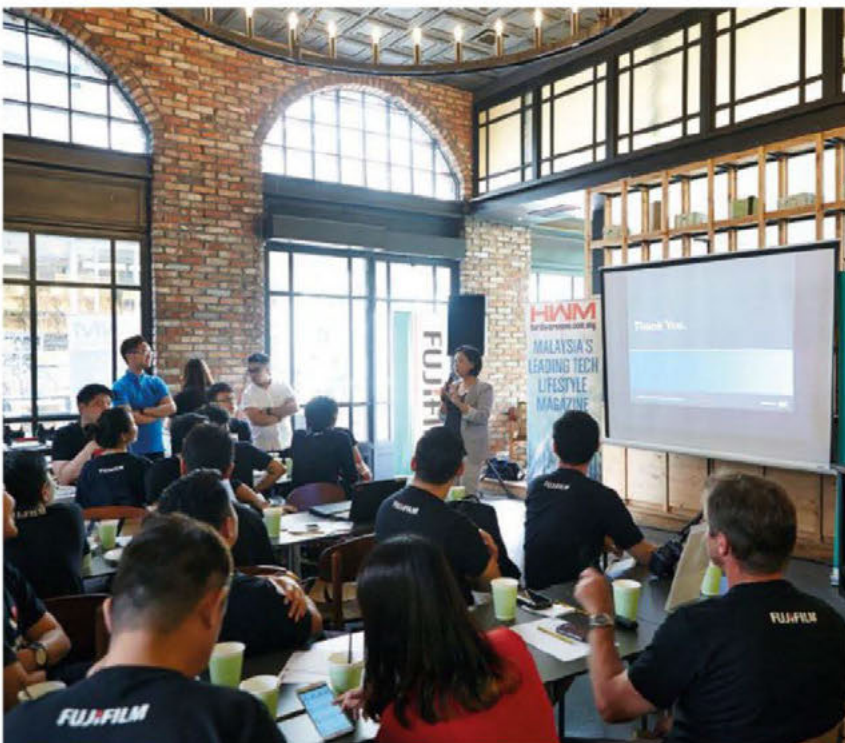
why he was there and the story he was trying to tell with them.

Throughout his presentation, S.C. Shekar slipped in tips and tricks, as well as the techniques he used for taking photos, such as the role shooting from the hip plays in keeping discreet, anticipating and framing of shots, and how to avert the stares of people whose photo you are taking.

At the end of the talk, the participants were asked to head out and take a stroll around Empire Damansara to see if they can put into practice all that they've learned from the talk and come up with the best photo.



With a camera in hand, S.C. Shekar describes some of the techniques he used as he takes his photos.



AT A GLANCE

Sensor

Micro Four Thirds

Megapixels

16.1

Dimensions

106.5 x 64.6 x 33.3 mm

Weight

236g (body only)

Price

RM2,099 (with 12-32 mm f/3.5-5.6 ASPH lens)



Tap up on the control dial to toggle between adjusting your shutter speed and aperture.

THE HANDY POCKET DO-IT-ALL

Panasonic LUMIX DMC-GF7

The DMC-GF7 is the sixth generation of Panasonic's entry-level compact system camera line, and a large part of the marketing spiel around the camera seems to be about making it "the ultimate in ease of use" for any photographer. This means of course, a variety of shooting modes for every situation and, in keeping with the trend, new selfie modes that let you take hands-free selfies, as well as a tilting 3-inch 1,040k-dot touchscreen LCD that flips up 180-degrees.

The LUMIX DMC-GF7 continues with the trend of classic retro-styled compact system cameras (CSC) and is even smaller than the LUMIX DMC-GF6 it replaces, weighing

just 266g. That makes it one extremely pocketable camera and the 12-32mm f/3.5-5.6 lens folds away nicely to complement that.

There isn't much of a grip on the LUMIX DMC-GF7 compared to the DMC-GF6 though, but the faux leather covering on the body seems to provide just about enough texture for a decent hold. This is quite an important consideration due to the small size of the camera, but overall, it does feel solid in the hands.

The controls have a good textured feel and despite the lack of physical real estate, there seems to be just enough spacing to the buttons that you can access them comfortably.

In line with the idea of making the camera easy to use, there's also a dedicated iAuto button that puts the camera into Intelligent Auto Mode, which changes all the settings for you based on what it detects of the scene in front of you. Do note that it will override any mode that you're previously in, and will stay activated until the iAuto button is pressed again.

Tilting the screen up puts the camera in selfie mode and gives you a new set of options to choose from – there's soft skin effect for skin smoothing, defocus effect for the bokeh look, slimming mode, and you get a range shutter activation options.





The Lumix DMC-GF7 gives impressive detail at the lower ISOs.

CONCLUSION

Small and compact with great looks and features, the Lumix DMC-GF7 makes for a great everyday camera.

SPECIFICATIONS

Display 3-inch, 180-degree tiltable TFT LCD screen, 1,040k dot // **Recording Media** SD, SDHC, SDXC (compatible with UHS-I standard) // **Image Format** RAW, RAW + Fine, RAW + Standard, Fine, Standard, MPO (3D image) // **Video Format** MP4 and AVCHD, up to 1,920 x 1080, 60p // **Wi-Fi** Yes // **Shutter Speed** 1/25s, up to 1/16,000s // **Warranty** 1-year standard + 1-year online (via online registration) // **Contact** Panasonic Customer Care Centre // **Telephone** (03) 7953 7600 // **URL** www.panasonic.com/my



Choose between Buddy mode, which takes a picture when the camera detects two faces are close together, or Face detect mode, which asks that you put your hand in front of your face first, then activates the shutter when it's moved away. You can also set the number of shots to take (from one to four) and the length of the countdown (three or ten seconds).

We like that there's an on-screen drawer that provides quick access to five custom functions, and also that the camera allows you to use the control dial to physically adjust both shutter and aperture (even if you have to press a button to switch between functions). This is all activated by touch, adding another layer of control that further cuts down on menu diving required.

Built-in Wi-Fi means you can also pair the camera to your smartphone via the Panasonic Image app, allowing you to expand shooting capabilities. We like the interface of the app, as it gives you a live view of what the camera is seeing,

and allows you to change practically every shooting setting on the camera.

There's even a jump shot function which sets the camera to detect movement, hence triggering the shutter. There's five levels of sensitivity to best match the type of jumping you intend to do, so that's certainly something unique to the camera to look into.

The LUMIX DMC-GF7 is powered by a 16-megapixel Micro Four Thirds Digital Live MOS sensor paired with Panasonic's Venus Imaging engine. This combination makes the LUMIX DMC-GF7 extremely responsive. It starts up in less than half a second, and the LCD blackout between shots is very much negligible.

In our testing, we found the camera to be very responsive. Autofocus is fast and accurate, and the buffer of the camera clears almost fast enough for you to be shooting continuously at just under five frames per second until your card fills up. Images captured have good color and contrast, and there's an impressive amount of detail captured

when you stop down the lens towards f/11.

The in-body image stabilization allowed us to take images handheld at about 1/10 second, and the new Low Light AF function in the Light Speed AF system meant we were still able to get autofocus quickly despite the poor lighting conditions due to the overcast weather. While the camera goes up to ISO 25,600, we'd recommend sticking to ISO 6,400 and below as detail tends to get lost at the extreme sensitivities.

by Marcus Wong

TESTED & RATED

8.0_{/10}

HWM
MALAYSIA

Available at

PLAZA LOW YAT

SMB

THE SMALL MEDIUM BUSINESS SECTION



ASEAN GAMING INDUSTRY GET TOGETHER

An ASEAN Roundtable Forum Was Held to Ignite Potential Collaborations and Market Access Opportunities in the Gaming Industry Between the ASEAN Countries

161

AZIZUL RAHMAN ISMAIL

He knows what you need

Getting ahead in business is all about getting the information you need, when you need it, and Azizul knows this well. He digests business related technology, events, news, and products to give you only what you need to drive your small and medium-sized business ahead of the pack.



INSIDE

159

REPORT

Coverage of business events in and out of the country



162

Canon MAXIFY iB4070

AWARD-WINNING ARRAY

Tegile's Intelligent Flash-Optimized Storage Solutions Launched for SMBs

Tegile Systems unveiled the availability of its full suite of award-winning T-Series All-Flash Arrays and Hybrid Arrays together with its exclusive partner Impact Business Solutions (M) Sdn Bhd. The solution is designed for small and mid-sized businesses (SMBs) and large enterprise organizations to overcome their data management challenges.

"Compared to traditional hard-disk arrays, Tegile's solutions are a new generation of flash-driven enterprise storage arrays that balances performance, capacity, features and cost for enterprises' virtualization, file services and database applications, helping customers realize significant cost savings while better protecting their business information," said Bill Cordero, Vice President of Worldwide Channels, Tegile Systems.

The arrays available include the Tegile T3400, which earned first place and the "Best in Class" designation, and the T3200, T3300 and T3100, which came in second through fourth place, respectively in the DCIG 2015-16 Small and Midsized Enterprise (SME) Hybrid Storage Array Buyer's Guide. The guide weighed, scored and ranked over 23 arrays from 10 different storage providers.

"Our customers in Malaysia are facing challenges in exponential data growth and increasing demand for more efficient storage performance. Tegile's entry into the market is timely in meeting these challenges, especially in providing a flexible and powerful solution be it for enterprises or SMBs. As its exclusive partner, we are in an advantageous position to provide our customers best-in-class support," said Winston Chai, Managing Director, Impact Business Solutions Sdn Bhd.



MALICIOUS MOBILE MENACE

Trend Micro Q1 Security Roundup Shows a Rise in Mobile Malware and Attacks on Healthcare and Retail POS Systems

According to Trend Micro's report on the cybersecurity landscape for the first quarter of 2015, malvertising, zero-day vulnerability exploitation, "old-school" macro malware, and the decade-old FREAK vulnerability are some of the trending threats this year.

The report documented more than five million Android threats to date, nearing the predicted total of eight million by the close of 2015. It further elaborates that the top malicious and high-risk apps blocked by Trend Micro were adware related. At the end of the first quarter of 2015, Trend Micro noted that out of the total mobile apps downloaded in Malaysia, one out of 50 apps were malicious or potentially unwanted.

The report also noted that crypto-ransomware, a threat more commonly associated with mobile devices, has now spread from consumers to the enterprise.

Healthcare industry also experienced a notable rise in cyber-attacks, in addition to iOS and point-of-sale (PoS) systems continuing to be targeted. Since exploitations in these areas have been in their infancy for several years, researchers believe this rise is primarily due to a lack of preparedness – a sizable oversight that should be addressed.

"Even though we are early in the year, it is clear 2015 is shaping up to be noteworthy in terms of volume, ingenuity and sophistication of attacks. The rise in attacks against the healthcare industry, combined with the rise in malvertisements, reflects that technology users are being assailed from all angles. It is clear businesses and individuals alike need to be proactive in protecting against threats. As a business, how



Raimund Genes, CTO, Trend Micro.

would your IT-Security policies look like in a Zero Trust Environment? An aggressive and different security posture is critical to keep financial, personal and intellectual property safe," said Raimund Genes, CTO, Trend Micro.

100GBE NETWORKING

Dell Networking Z9100 Announced, a Multi-Rate 10/25/40/50/100GbE Platform



Dell Networking Z9100.

The announcement of the new Z9100, S4048, and the S3048 marks the expansion of Dell Networking data center portfolio. It brings low-latency and high-density networking and the flexibility of 1, 10, 25, 40, and 100GbE switching.

"The new products announced offer customers complete flexibility to take advantage of open networking environments and new computing models as well as the revenue streams these network infrastructures will allow," said William Tan, Head of Enterprise Solutions, Dell Malaysia.

Dell's latest generation switches support the Open Network Install Environment, which allows zero-touch install of all pre-qualified operating systems, including Dell Networking OS 9, and third-party options.

The Dell Networking Z9100 is a 100GbE fabric switch in a 1RU fixed-form factor for aggregation and access layers, and offers multi-rate

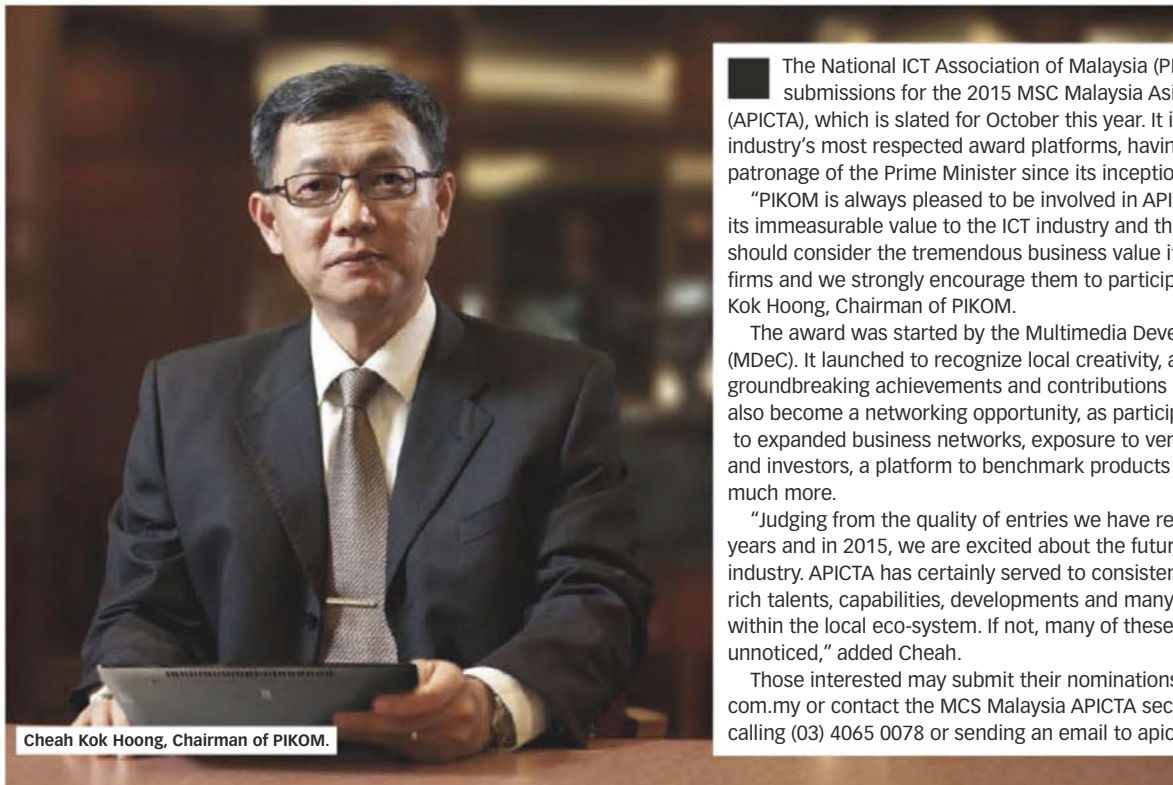
switching (10/25/40/50/100GbE). It is designed for cloud, HPC and Web 2.0 applications that require a range of options in switching rates in high-density environments, such as Big Data analysis.

For those looking for a low-latency switching in HPC and business-sensitive deployments that require the highest bandwidth and low latency, there's the Dell Networking S4048. It is a low-latency 10/40GbE Top-of-Rack (ToR) switch designed for the software-defined data center.

Finally, the Dell Networking S3048 is built for efficiency and performance, and is useful for enterprise and mid-market customers with an existing 1GbE installed base. It is Dell's first entry into 1GbE open networking switching. It is also ToR-equipped with next-generation 1GbE silicon, a complete OS 9 feature set, including VLT, OpenFlow, Open Automation, Cloud Stack integration with OpenStack, Microsoft, VMware, Docker and others.

ONLY THE BEST

PIKOM Calls for Entries with Over 20 Award Categories Open to Students, Technopreneurs, SMEs and Organizations Nationwide



Cheah Kok Hoong, Chairman of PIKOM.

The National ICT Association of Malaysia (PIKOM) calls for submissions for the 2015 MSC Malaysia Asia Pacific ICT Awards (APICTA), which is slated for October this year. It is one of the industry's most respected award platforms, having received the patronage of the Prime Minister since its inception in 1999.

"PIKOM is always pleased to be involved in APICTA as we have seen its immeasurable value to the ICT industry and the nation. Companies should consider the tremendous business value it brings to local ICT firms and we strongly encourage them to participate," shared Cheah Kok Hoong, Chairman of PIKOM.

The award was started by the Multimedia Development Corporation (MDeC). It launched to recognize local creativity, as well as groundbreaking achievements and contributions in the industry. It has also become a networking opportunity, as participants have access to expanded business networks, exposure to venture capitalists and investors, a platform to benchmark products and services, and much more.

"Judging from the quality of entries we have received from past years and in 2015, we are excited about the future of the local industry. APICTA has certainly served to consistently unearth the rich talents, capabilities, developments and many breakthroughs within the local eco-system. If not, many of these would have gone unnoticed," added Cheah.

Those interested may submit their nominations at www.mscapecta.com.my or contact the MCS Malaysia APICTA secretariat at PIKOM by calling (03) 4065 0078 or sending an email to apicta@pikom.org.my

GAMEFOUNDERS ASIA

Games Association Leaders From Around Southeast Asia Come Together to Discuss the Future of Gaming in the Region

■ The Multimedia Development Corporation (MDEC) hosted an ASEAN Games Roundtable Forum to explore and initiate potential collaborations or market access opportunities between ASEAN countries.

The forum was attended by games association leaders from Indonesia, Philippines, Singapore, Thailand and Vietnam. It was organized in conjunction with the launch of GameFounders Asia, powered by MSC Malaysia, a partnership between GameFounders and MDEC.

The goal of GameFounders Asia is to assist games start-ups or studios to overcome growth challenges by providing in-depth expertise in funding, mentorship, market access specifically for games, and more.

"Malaysia is in a good position to work with our ASEAN neighbors to develop the games industry in this region to the next level. This is in line with the spirit of the ASEAN Economic Community. The Malaysian Government sees games as a sector that we strongly support and it is deemed as a new engine of economic growth. Several grants and incentives are made available focusing on games development and production," said YBhg Dato' Sri Dr. Sharifah Zarah binti Syed Ahmad, Secretary General, Ministry of Communications and Multimedia.

The accelerator program provides access to over 120 top gaming gurus, CEOs and developers from global game studios such as Kings, PopCap, Rovio, Unity, Nintendo, and many more. Recently, the program has concluded its Big Asia Tour that spanned three weeks across several major cities, including Singapore, Jakarta, Manila, Tokyo, Ho Chi Minh, Bangkok, and Kuala Lumpur.



GameFounders Asia launched. Game On!

VIRTUAL PRIVATE CLOUD

Peering One's New Offering to be Hosted in Malaysia's First Secure Tier III Design Certified Data Center

■ Peering One announced the launch of its Virtual Private Cloud service, known as Peering One Cloud, in Malaysia as a scalable cloud solution for SMBs, enterprises, and medium-sized software houses.

The service will be hosted at Peering One's own HDC world-class data center, which is also the first data center in Malaysia to be given the Tier III Design Certification by the Uptime Institute.

"Large enterprises stand to benefit most from our cost competitive and scalable service. They can quickly scale up or down to match their particular demands. In short, clients only pay for what they use. Peering One also offers system integration capabilities by providing clients with the option of migrating their infrastructure to the cloud. Our service is backed up with 24x7 technical support from highly experienced certified professionals and create a proof-of-concept (POC) environment within a matter of hours to illustrate features, functions and benefits and to ensure that the end product matches the client's expectations," said Wong Chee Voon, Country Manager, Peering One Malaysia.

Peering One Cloud service uses Microsoft's Cloud OS platform and also offers Microsoft's all-in-one management web portal that integrate an organization's private cloud (on their data center) to the hosted private cloud and virtual private cloud (at the HDC data center) via Windows Azure. It is continuously updated and developed by Microsoft-certified professionals and is compatible with Microsoft's wide range of powerful and flexible third-party apps that can be used to customize and be integrated into the Virtual Private Cloud.



Wong Chee Voon, Country Manager, Peering One Malaysia.

PROTECTING CLOUD DATA

Symantec Announces New Data Protection Solution That Spans Local and Cloud Stored Data

■ Data Loss Prevention (DLP) 14 by Symantec is said to grant CIOs greater confidence that employees can take advantage of storing information in the cloud without worrying about data loss or theft.

Cloud storage, like many trends, is a convenience whose adoption outpaced its security concerns and comprehension.

Symantec DLP 14 now supports Microsoft Office 365 for companies who are using as a cloud-based email solution.

Symantec DLP for Box integrates with the Box platform to monitor employee accounts, offering deep analysis into what information is considered sensitive, how this information is being used, and with whom it's being shared. Additionally, when sensitive files are detected, DLP for Box places visual tags on the content and allows users to self-remediate the files directly within Box.

At the endpoint, DLP 14 also enables the protection of sensitive

information for users of Personal Cloud File Sync & Share, such as Microsoft OneDrive, iCloud, Google Drive and Dropbox, and even email services like Gmail.

"Symantec Data Loss Prevention is a content-aware security technology that helps companies understand where their sensitive corporate information is being stored, how it's being used and how to protect it against loss and theft. With the latest release, we are extending DLP to cloud email and storage to provide our customers the control

and visibility they need to secure their sensitive information as they take full advantage of the cloud. We've also announced a new, robust integration with Box, as it's one of the top requests we've seen from our DLP customers," said Amit Jasuja, Senior Vice President, Product Development at Symantec.



NEXT-GENERATION ENTERPRISE COMPUTING

Introducing Nutanix Acropolis and Nutanix Prism, the Next-Generation Xtreme Computing Platform Solution from Nutanix

■ Nutanix unveiled two product families as an extension to its hyperconvergence solution that enables applications that are independent of infrastructure. It is also their answer to the need of an infrastructure that delivers cloud-like scalability, resiliency, agility and flexibility – but with lower costs, better application service levels, and trusted security.

"The most transformative technologies are the ones we don't even think about. They work all the time, scale on demand and self-heal. In other words, they are invisible. Building on our foundations of web-scale engineering and consumer-grade design, we will make virtualization as invisible as we've made storage and elevate enterprise IT expectations yet again," said Lin Pun Kok, Managing Director, Nutanix ASEAN.

The first of the family of products unveiled is the Nutanix Acropolis, which builds on the company's flagship hyperconvergence product. It gives IT professionals the flexibility to choose the best application platform technology for their organization.

Nutanix Prism, the second family of products launched, brings simplicity to infrastructure management with One-Click technology that enables software upgrades, monitoring, and troubleshooting in one click.

"With a leading 52 percent market share in the hyperconverged infrastructure market, Nutanix has demonstrated its ability to radically simplify data storage for all size enterprises. Their next big opportunity is to tackle the inherent cost and complexity of legacy virtualization stacks, and elevate IT teams so they can focus on driving the business," said Matt Eastwood, Senior Vice President, IDC.



BUSINESS-CENTRIC PRINTER

Canon MAXIFY iB4070

Canon's new MAXIFY series is designed for the business and enterprise market, and the iB4070 focuses Canon's strengths into a package that would benefit its target audience: small businesses. This results in a printer that is functional and affordable to maintain.

The iB4070 is the entry-level single-function printer in the series. It features high-capacity low-cost ink, dual high-capacity paper cassette, easy setup, Wi-Fi connectivity, and a relatively compact design.

Unlike its other higher-end siblings, the iB4070 does not have a full color LED display. Instead, it is equipped with a small LCD display. In our tests, this just means getting to the function you want will take a little longer, and if you don't remember the option you want, it can get frustrating. Nevertheless, it is very functional.

Setting up the printer was surprisingly simple. We choose to connect via Wi-Fi as this would be the least disruptive

method of installing the printer. This is mainly thanks to WPS, which although convenient, could also pose as a security loophole, but that's a security tangent.

The footprint of the iB4070 is relatively on the average side at 463 x 394 x 290 mm. However, due to its near-cubish shape, it looks large and we have mixed feelings about the paper cassette protruding an additional 70mm when loaded with A4 paper.

Prints are crisp and clear, although a bit jagged with a maximum printing image resolution of 600 x 1,200 dpi. This is partly due to the new high denseness black pigment ink, which produces razor-sharp texts. They are also water- and marker-resistant, which is a big plus for inkjet printers.

The printer's maximum print speed is approximately 32 ppm for mono and 24 ppm for color prints. It is compatible with XL-sized ink cartridges that cost between RM84.80 and RM125.10, and can print

approximately 2,500 pages in black-and-white and up to 1,500 pages in color. This translates to a good deal of cost savings.

Photo prints, however, are not the iB4070's strong suits and we think it does not have to be either, since it is meant for the business environment, but it is still worth mentioning here.

As an additional feature, which is now standard in the MAXIFY lineup, the iB4070 is capable of printing documents from the cloud and Internet-connected mobile devices, which is fast becoming a sought-after function.

by Azizul Rahman Ismail

TESTED & RATED

8.0/10

HWM
MALAYSIA

AT A GLANCE

Maximum Printing Resolution

600 (H) x 1,200 (V) dpi

Paper Cassette Capacity

250

Wireless

802.11b/g/n

Display

Full Dot

Price

RM549.08



The print quality is clear and good enough for document in business and corporate environments.

CONCLUSION

Economical, capable and affordable, the MAXIFY iB4070 is a good fit for small offices.

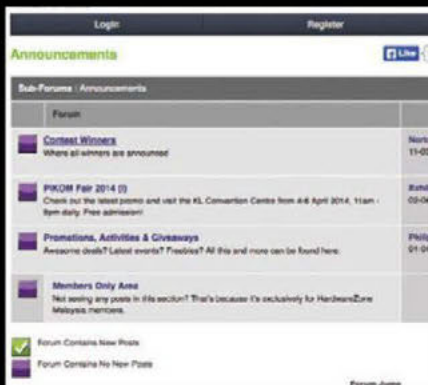
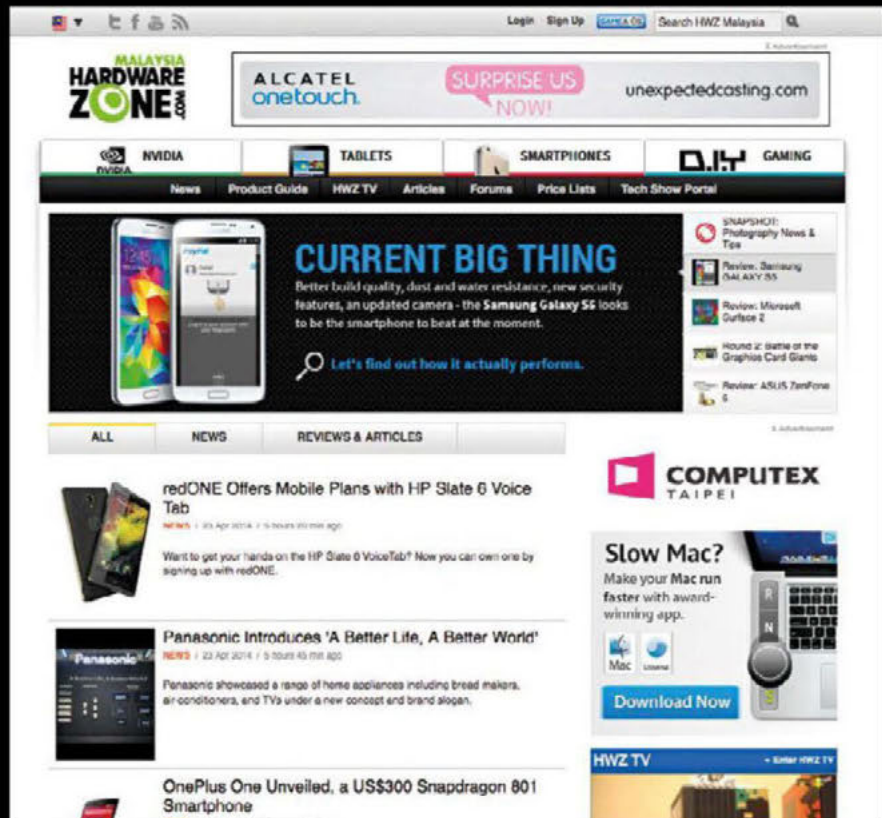
SPECIFICATIONS

Paper Size A4, A5, B5, LTR, LGL, 4 x 6", 5 x 7", 8 x 10", Envelopes (DL, COM10) // **Ink Cartridge** PGI-2700 (Cyan, Magenta, Yellow, Black), Optional: PGI-2700XL (Cyan, Magenta, Yellow, Black) // **Duplex Printing** Yes // **Print Head Alignment** Auto, Manual // **Dimensions** 463 x 394 x 290 mm // **Weight** 9.8kg // **Warranty** 3-years // **Contact** Canon Marketing (M) Sdn Bhd // **Telephone** 1 800 88 2000 // **URL** www.canon.com.my

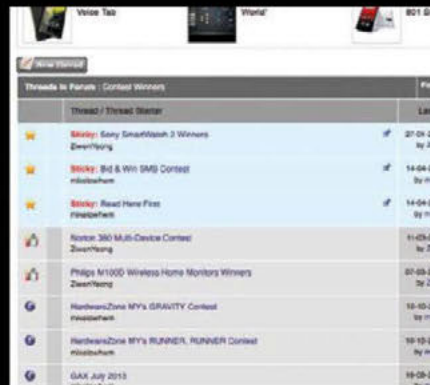


HWM MALAYSIA CONTEST WINNERS!

Did you join one of our contests? Not sure if you've won? To find out, head on over to our new HardwareZone Malaysia site @ hardwarezone.com.my and check out our new Forum (on the top navigation bar).



There you'll find Contest Winners.




Click on it and you'll see the list of contests we have had – explore them to find if your name is there!



If it is, see how you can claim your prizes!

Congratulations to all our lucky readers and for those who didn't win anything – keep trying as we have new contests every month! Good luck!



LEARN

EXPLORING THE ORIGINS OF THE COSMOS

■ The Hubble Space Telescope captured the iconic snapshot of the Eagle Nebula: three majestic columns of interstellar gas and dust that have since been dubbed the "Pillars of Creation". Its successor, the James Webb Space Telescope, will see even further to explore our origins.

Text by *wanzl koh*

MORE INSIDE >

- ASTRONOMY ON YOUR WRIST
- HTC ONE M9+ S DUO CAMERA MODE
- RECHARGEABLE BATTERIES

SUCCESSING HUBBLE:

Understanding the James Webb Space Telescope.

by Koh Wanzel

First launched in 1990, the Hubble Space Telescope (HST) helped propel a new wave of discoveries about the universe, even allowing scientists to pin down its age with greater precision than before. Its advanced optics and unique vantage point in space allowed it to see farther than most ground-based telescopes.

Hubble captured dazzling images of the cosmos. People thought of space as a black void speckled with stars, but Hubble showed it in almost phantasmal bursts of color and light.

Its successor, the James Webb Space Telescope (JWST) will build on Hubble's work, peering further back in time to view the formation of distant galaxies.



STUDYING THE BEGINNINGS OF OUR UNIVERSE

JWST was conceived as an instrument to study galaxy, star and planet formation in the universe. Even light takes time to traverse the vast distances in space, so when astronomers observe a distant celestial object, they're actually looking into the past. And the farther out they look, the further back in time they can see.

Star and planet formation in the local universe takes place in the centers of dense, dusty clouds, a process that can only be observed by a telescope primed to detect longer wavelengths – like near-infrared light – that escape the clouds. Galaxy formation emits near-infrared light as well, and astronomers are hoping JWST will pick up on that too.

Thanks to its larger mirror and greater light-collecting area, JWST can look further into the past than Hubble and study the first stars and galaxies that formed when our universe was still young.

The universe is now widely accepted to be around 13.7 billion years old. JWST will be looking to observe the formation of stars and planets when it was just 100 to 250 million years of age.

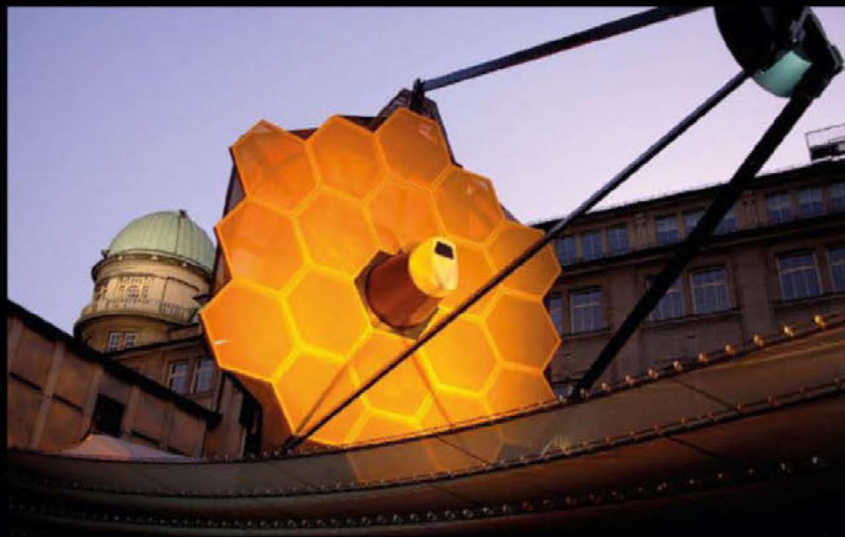
	JWST	HUBBLE
Size	22 x 12m	13.2 x 4.2m
Wavelength	Infrared	Ultraviolet and visible
Orbit	1.5km away; does not orbit Earth	Orbits 570km above Earth
Primary Mirror	6.5m diameter	2.4m diameter

SEGMENTED, GOLD-COATED MIRROR

JWST's primary mirror is six times the size of Hubble's, but has only one-tenth its mass. Its mirror will consist of 18 hexagonal beryllium mirror segments, which will unfold as JWST launches. This allows the mirror to fit into the launch shroud of the rocket that will take it into space.

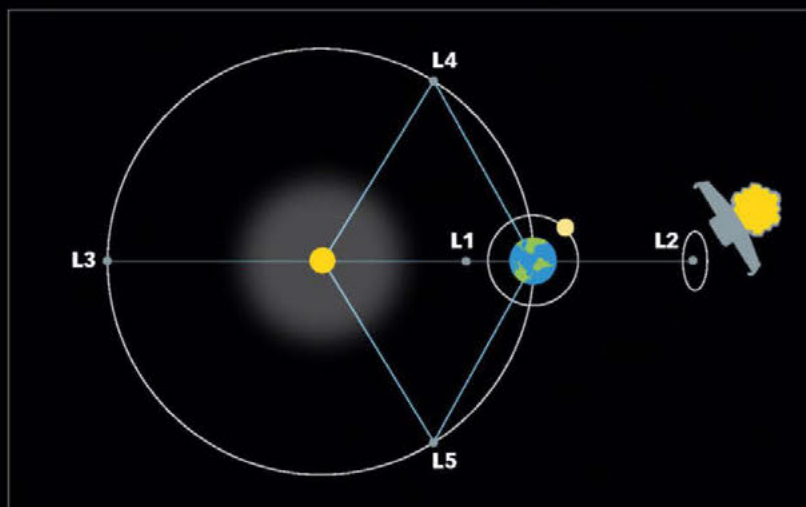
Beryllium is also known for its high strength per unit weight. Beryllium is already used in many components of supersonic aircraft because of its light weight, stiffness, and dimensional stability, the latter of which is a measure of how temperature affects the linear dimensions of a material. It was chosen for the mirror for precisely these reasons – JWST will operate at below -220°C , so the mirrors need to remain stable at low temperatures.

And because gold absorbs blue light but reflects red and infrared light extremely well, the individual segments are gold-coated to optimize them for greater sensitivity to infrared wavelengths.



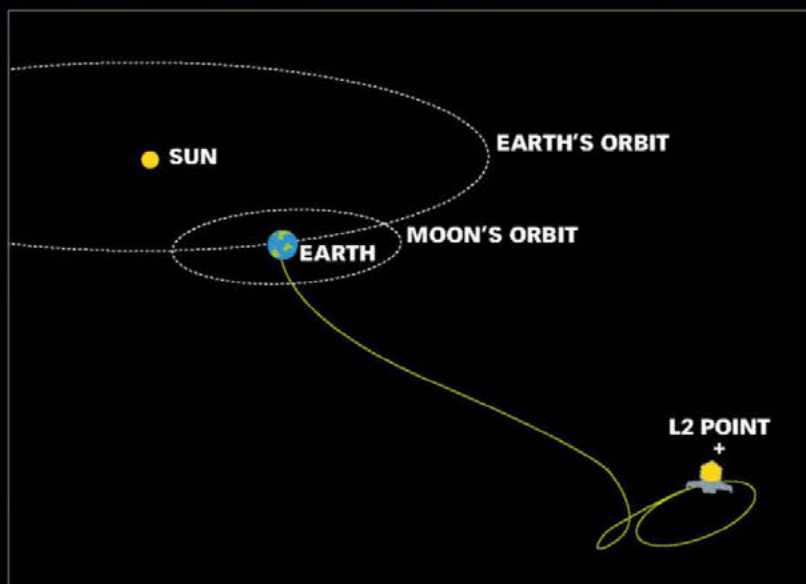
INTERSTELLAR OBSERVER

JWST will be located at a point called the Earth-Sun L2 Lagrange point, which will help it stay cool. This is especially important for an infrared telescope. The five-layer sunshield shields the various mirrors, detectors and filters from sunlight and heat from infrared light.



LAUNCHING JAMES WEBB

JWST is still under construction and is scheduled for first light in October 2018. It will be launched by an Ariane 5 ECA rocket and will officially begin its mission six months after its launch, with an expected mission lifetime of between five-and-a-half to 10 years.



JWST's Orbit at the Earth-Sun L2 Point.

WATCHES IN-DEPTH:

Types of astronomical complications.

by Kenny Yeo

Thanks to modern inventions such as GPS and digital maps, man no longer needs to rely on complicated maps and mechanical contraptions to navigate the Earth. While not as practical as they once were, astronomical watch complications that tell the position of the Earth, Sun and stars still exist as a celebration of how far the human race has come. More than that, it also serves as a showcase of a watchmaker's mastery over science and engineering. Still not convinced? Think of it this way. Anyone can read Google Maps, but when technology fails, you will finally be able to prove your alpha worth by being the only person who can read the sun and stars.

Here are some examples of astronomical complications.

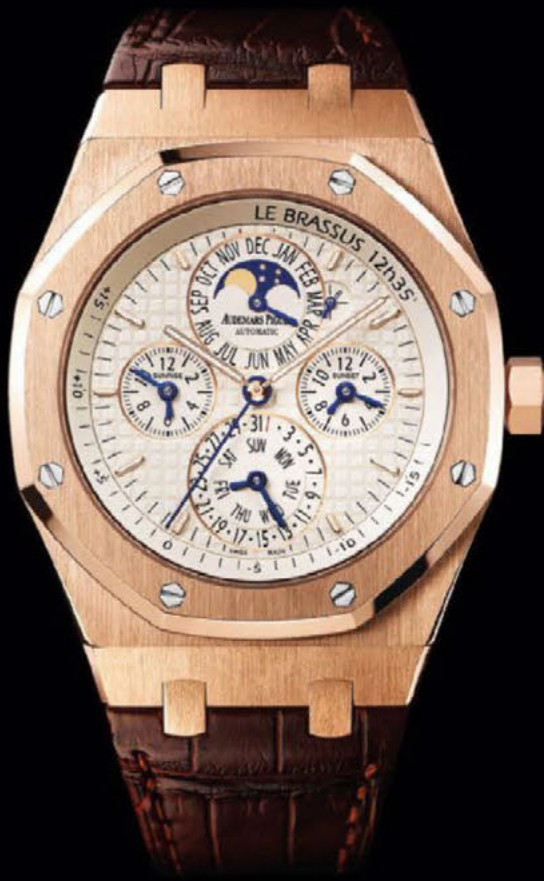


EQUATION OF TIME

The equation of time complication is a rarely seen complication and is often only found on very complex pieces. The equation of time shows the difference between apparent solar time and mean solar time. Apparent solar time is sometimes also referred to as true solar time and refers to the time that it is obtained by precisely measuring the position of the sun. Mean solar time is the time that we all know, with noons set 24-hours apart.

If we were to track the true solar time over a year, we would find that a day is only exactly 24 hours long four times a year. For the rest of the year, it varies between plus and minus 16 and 14 minutes respectively. This explains why if you were to look at a sundial, you might find that it's running slightly fast or slow. The reason for this phenomenon is due to two factors: the earth does not orbit round the sun in a perfect circle, and it does not orbit the sun at the same plane.

An example of a watch with an equation of time complication is the Audemars Piguet Royal Oak Equation of Time. Apart from the equation of time display, it also features a perpetual calendar, moonphase indication and sunrise and sunset timings set for the city displayed on the dial ring.



PICTURES: JAEGER LECOULTRE, AUDEMARS PIGUET, IWC, VAN CLEEF & ARPELS

SIDEREAL TIME

Another uncommon astronomical complication that is somewhat related to the equation of time and solar time is sidereal time. Whereas solar time is dependent on the position of the sun, sidereal time is measured by using the position of fixed stars. Briefly, sidereal time is the measure of time based on the Earth's rotation relative to fixed stars. In other words, a sidereal day is the time it takes for a fixed star to reappear at the same location.

A sidereal day is on average about four minutes shorter than a solar day. This is because as the Earth rotates on its own axis, it is also rotating around the sun. By the time it has made a rotation around its own axis, it would also have moved a little along its orbit around the sun. As a result, it needs to rotate a little more around its own axis so that the sun would reappear at its highest point, marking a complete solar day. Fixed stars are so far away from Earth that Earth's movements along its orbit around the sun would make no difference in their apparent direction and position.

Frankly, there's little use for knowing the sidereal time for most people, but in the past, the sidereal time is used by astronomers and navigators to keep time so that they know where to point their telescopes to find stars without worrying about where the Earth is in its orbit.

The IWC Sidereal Scafusia displays sidereal time in a 24-hour format in a sub-dial at 12 o'clock and behind the watch is a specially customized celestial chart showing the constellation based on the owner's location. On the watch back are also indications for a perpetual calendar and times for sunrise and sunset.



ORRERY

One of the most romantic and visually arresting complications in all of horology is the orrery, or sometimes also referred to as a planetarium. An orrery is simply the display of the relative positions of the planets and moons. This was used in the past to quickly discern the location of the various planets in our solar system. And the best way to explain this is to look at the watch we have here - the Van Cleef & Arpels Midnight Planetarium.

On the dial, you will see concentric rings and on each ring is a small round stone. These stones denote a planet in our solar system. Although there are eight planets in our solar system, there's unfortunately only enough space for six on the dial, so each stone represents one of six planets closest to the Sun - Mercury, Venus, Earth, Mars, Jupiter and Saturn. The Sun is represented by the large gold stone in the middle. Each of these planets will orbit the Sun in the middle in real time. Hence, Earth, represented by the blue stone, will make a revolution in 365 days; while Mars, on the other hand, will take just 88 days.

Apart from the orrery, the Midnight Planetarium watch also features the above mentioned equation of time display on the rear side and also has a perpetual calendar complication. Time is indicated in a 24-hour format and is read by looking at the position of the shooting star on the dial.



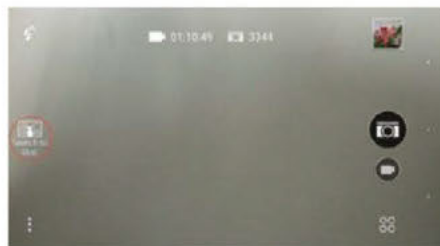
EDITING ON THE GO

Make full use of your HTC One M9+'s Duo Camera mode.

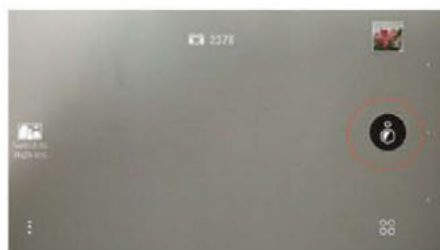
by John Law

HTC's One M9+ is a flagship phone in possession of two very powerful camera sensors, as well as some pretty nifty photo-editing apps other than HTC Zoe. In this issue, we'll teach you how to properly use some of the functions of the Duo Camera app.

To activate Duo Camera mode, first activate the camera. Once you've turned on the camera, there will be an option to the center left of the One M9+'s display that says 'Switch to Duo'. Tap on the icon, and the camera will set itself up to take photos in Duo Camera mode.



Tap the icon on the left to activate Duo Camera mode.



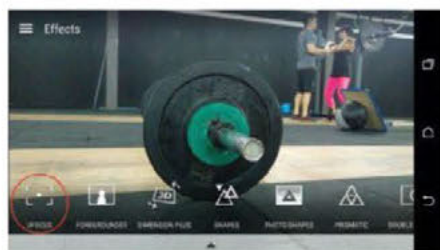
When activated, you should see the Duo Camera icon replacing the shutter button.

UFOCUS

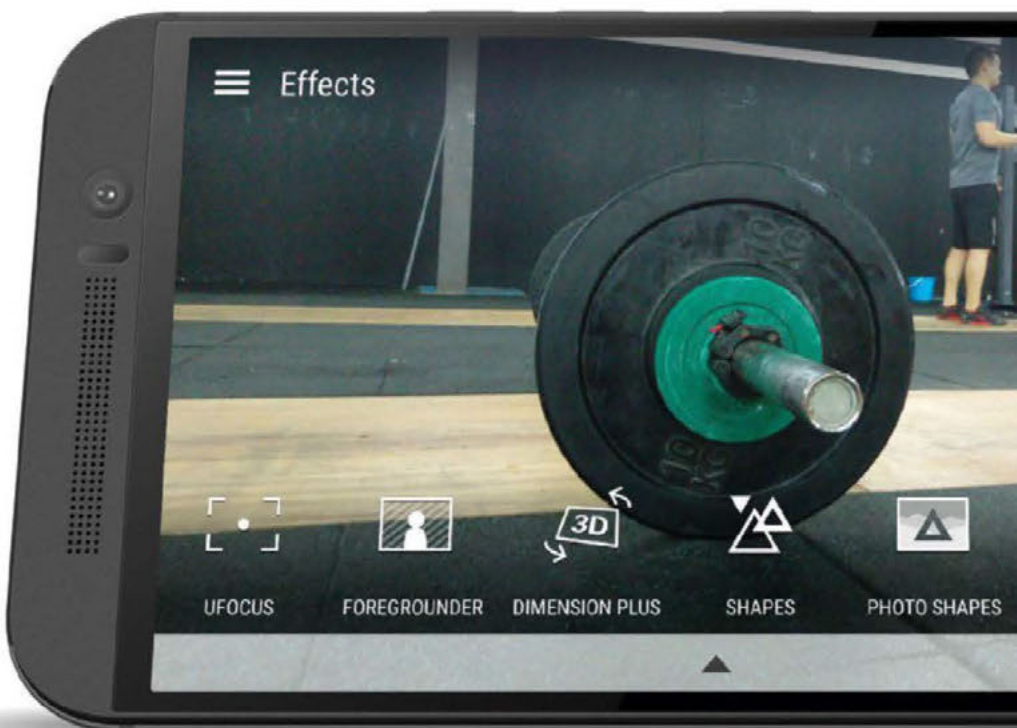
One of the standout modes from Duo Camera is the UFocus function, which essentially lets you choose your point of focus within any photo taken in Duo Camera mode. Here's how!

STEP 1: TAKE A PHOTO

The first and most obvious step that you'll need to do is take a picture of your subject in Duo Camera mode.



Choose the UFocus option.



STEP 2: ACTIVATE THE DUO CAMERA FUNCTION IN THE GALLERY

Once you've taken your shots in Duo Camera mode, photos taken will be marked with the Duo Camera icon at the bottom left of the photo. To activate UFocus, simply tap on the icon and choose the first option from the list that appears.



You can change the point of focus on the photo by tapping on any point of the image.



Here, you can see the focus area of the photo at the bottom right.

STEP 3: CHOOSE THE POINT OF FOCUS IN THE PHOTO

UFocus works by adjusting the depth of field around the point of focus. Depending on where you tap, the app will automatically adjust its focus to sharpen the details on the subject, while blurring out the rest of the background.



You can adjust the depth of field for UFocus via the bar to the right.

STEP 4: ADJUST DEPTH OF FIELD STRENGTH

You can adjust the strength of the blur effect in UFocus by shifting the depth of field bar that appears on the right side of the screen during editing. The stronger the depth of field, the sharper the details and focus of the subject, and the more blurred out the background becomes.



DIMENSION PLUS

Dimension Plus is relatively straightforward to use. The app essentially distorts the photo in order to give it the eye-popping illusory effect whenever you look at it from different angles of your phone. To use it, simply choose a photo taken in Duo Camera mode and select the Dimension Plus feature. Tap on the 3D icon located at the bottom-left corner to choose if you would like to tilt the phone or swipe the screen to get the desired angle, and then save the picture. It's that simple.



You can apply a 3D effect, either by tilting your phone, or using the swiping option.

ELEMENTS

Instead of adding in different hand-styled effects, the Elements feature adds in virtual elements of nature that float inside the picture, such as snow, Sakura blossoms, dust particles, or even maple leaves.

STEP 1: CHOOSE A PHOTO YOU WANT

Once again, you'll need to choose a photo that you have captured using Duo Camera mode. If the photo wasn't captured there, you won't be able to apply any of these effects to it.



Here, you can select the different elements. Seen here is the Sakura element.

STEP 2: SELECT THE ELEMENTS MODE IN THE DUO CAMERA OPTION LIST

The Elements mode is the very last option located at the end of the list. Simply tap the icon to bring up yet another list of elemental effects.

STEP 3: SELECT THE DESIRED ELEMENTAL EFFECT FOR THE PHOTO

As dictated, this step requires no further explanation. Simply choose the desired elemental effect that you wish to use for your photo and then save it.

FOREGROUNDUR

Foregroundur is another app that lets you play around with the background of the subject. However, instead of adjusting the depth of field, this app adds in a pre-made effect, which you can choose from the list.

STEP 1: CHOOSE A PHOTO

Choose a photo taken with Duo Camera mode.

STEP 2: CHOOSE THE FOREGROUNDUR MODE

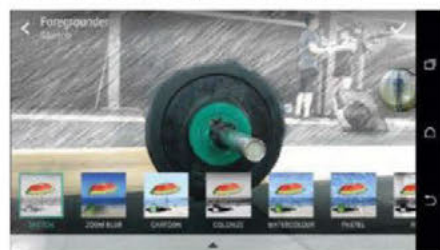
Once you've chosen the app, simply choose the Foregroundur mode.



This option allows you to add in pre-made effects.

STEP 3: CHOOSE ANY ONE OF THE PRE-MADE EFFECTS.

Once you've selected Foregroundur mode, simply choose from the list of pre-made effects to apply to your photo. These pre-made effects consist of Sketch, Zoom Blur, Cartoon and even Coloration. Like UFocus, you can also choose the subject or focus point in the photo.



The various pre-made effects inside the Foregroundur mode.



POWER TO THE PEOPLE

What you need to know about rechargeable batteries.

by Azizul Rahman Ismail

Rechargeable batteries are a ubiquitous technology, but how much do you really know about them? Here, we are going to look into the technology behind rechargeable batteries, the meaning of the terms commonly associated with them, and some practical applications using FUJITSU rechargeable batteries.

BATTERY TYPES

Battery technology, although slow to evolve, has spawned a wide variety of battery types (based on the chemistry types). These include Nickel Cadmium (Ni-Cd), Nickel Metal Hydride (Ni-MH), Lithium Ion (Li-ion), and Sealed Lead Acid (SLA). Each type of battery has its own strengths and weaknesses, for example, Ni-Cd battery is well understood and non-environmental friendly, whereas Li-ion batteries are very fragile.

FUJITSU rechargeable batteries use Ni-MH, which has a high energy density and does not contain toxic metals. This means that these batteries are easier and safer to travel with compared to Li-ion and Ni-Cd batteries.



CHARGE CYCLES

Nothing lasts forever, and that is true with rechargeable batteries as well. Usually in the thousands, this number represents how many times a battery can be fully charged and discharged before it loses a significant amount of its performance.

Li-ion batteries, the most commonly used batteries in consumer electronics today, have an average lifespan of 1,200 charge cycles. This translates to approximately two years of use (assuming that you need to charge it twice a day). Ni-MH batteries, however, have variable charge cycles. For example, the HR-3UTCX can maintain performance during 2,100 charge cycles, while the HR-3UTHCEX can do so for 500. However, the former has a capacity of 1,900mAh (minimum), while the latter has a large capacity of 2,450mAh (minimum).



MILLIAMPERE-HOUR

Power banks often boast mAh in the thousands or tens of thousands, but what does the number really mean?

Ampere-hour refers to the electric charge in a battery, which dictates how long a battery can produce a current of one ampere. For example, a 5,000mAh power bank is equal to 5 ampere-hours (Ah), which means it can supply one ampere of constant power for five hours.

This number, however, does not tell you how long the battery can power your device, as most devices vary in actual power usage. FUJITSU rechargeable batteries let you pick between batteries with a large number of charge cycles but lower mAh, and fewer cycles with higher mAh.



ALWAYS USE AN APPROPRIATE CHARGER

Manufacturers for batteries and devices that have built-in rechargeable battery recommend that users charge their batteries in specific brand of chargers. Despite the cynic in us, this is not a ploy by companies to make us buy more of their products.

All batteries, and this is especially true with Li-ion batteries, are sensitive to overcharging, over discharging, power fluctuations, and other variables. To alleviate this, manufacturers install intelligent circuits that ensure your rechargeable batteries stay healthy.

FUJITSU rechargeable batteries are Ni-MH, and should only be charged in battery chargers that are specifically designed for Ni-MH batteries.

STORAGE

It is good practice not to store batteries in devices if you are not planning to use them for prolonged periods of time, but did you know that there are recommendations for storing rechargeable batteries outside devices for prolonged periods as well?

As temperature and humidity are also factors affecting battery life, these batteries and devices should be stored in a cool, dry place.

Store your batteries in a battery case that prevents them from getting into contact with items such as keys or paper clips, as the batteries could be short-circuited.

A BATTERY THAT HAS VIRTUALLY NO MEMORY EFFECT

Some people still practice deep cycling, which is discharging a battery until it is empty before charging it to its fullest because of the memory effect in rechargeable batteries. Although this was a recommended practice in the past, FUJITSU rechargeable batteries that have virtually no memory effect have been created to solve this issue and eliminate the hassle of deep cycling.

Batteries can be pre-charged and stored (at normal room temperature and in a cool, dry place) and be ready to use anytime, anywhere.

FUJITSU rechargeable batteries can retain up to 85 percent of their charge for a year, or up to 70 percent of their charge for five years.

CONTINUOUS CHARGING

Leaving a rechargeable battery constantly plugged in could be just as detrimental as over discharging it. Although it is true that devices and chargers today have built-in circuitry that prevents batteries from overcharging, leaving the battery constantly plugged in also generates heat that could be bad for both the battery and the device.

If you find your battery in need of being constantly charged to perform as it once was, perhaps it is time to get a new one altogether.

If you are afraid that you will have a dead rechargeable battery on hand when you need it the most because you didn't keep it constantly charging, don't worry. FUJITSU chargers come with safety features to prevent batteries from being overcharged. And with the useful features of FUJITSU rechargeable batteries, you do not have to constantly charge your batteries for fear that they may discharge themselves as traditional rechargeable batteries do.

MADE IN JAPAN

Japanese technology and products have always been cutting edge, but have you ever wondered about your batteries?

While most rechargeable batteries available today are made in China, we are glad to say that FUJITSU rechargeable batteries are still made in Japan at FUJITSU's Takasaki factory.



Fujitsu Portable Smart Chargers accept both AA and AAA Ni-MH batteries.

EXPANDING IOS SPACE

Adding secure and expanded storage space to your iOS devices with SanDisk's iXpand Flash Drive.

by Ian Chee

Transferring files between a PC and iOS device often means using a Lightning-to-USB cable, or a USB flash drive with a Lightning adapter of some sort. With the SanDisk iXpand Flash Drive, you can move files between them easily, as well as prevent others from stealing them should you lose it.

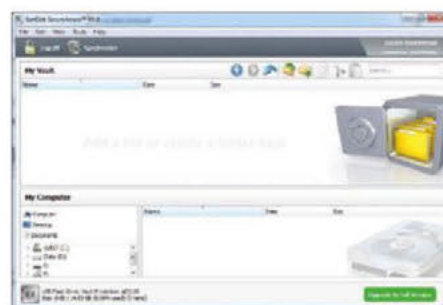


1) WHAT IS A SANDISK IXPAND FLASH DRIVE?

The iXpand is simply a USB flash drive with a Lightning connector attached, allowing you to use it as a USB On-the-Go flash drive for supported iPhone, iPad, or iPod touch. The extra feature in the iXpand is the ability to encrypt files inside it, so that even when the drive is lost, those who find it are unable to access your files.

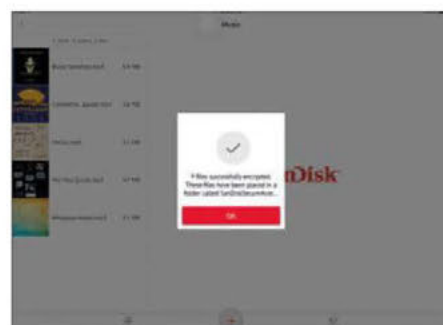
2) SETTING UP

To get the encryption to work on the PC, you'll need to run the SanDisk application found inside. Run it again after a short setup process, and you'll be asked to create a password for it. You can choose what parameters your password must meet, giving you the freedom to set a simple password if you so choose. Dropping files into the vault would mean requiring a password, whether you access them from a PC or an iOS device.



3) ON IOS

Accessing the iXpand requires an app that is available as a free download from the Apple App Store. In fact, you will be prompted to download it, and will be taken straight to its page on the App Store from the dialog box. The app works like a file manager for the iXpand Flash Drive, where you access files and folders. Files that are encrypted will need to be decrypted first before you can open them, and you can freely encrypt and decrypt them once you key in your password. You can also move files from folder to folder as with any other file manager.



GET YOURS NOW



**Subscribe today and
get an Audio-Technica
ATH-CKF500 inner ear
headphones for FREE***

YES! Please start my subscription to
HWM Malaysia from _____ (month)
2015 / 2016

HWM Malaysia Subscription Rates

	HWM 1-year (Normal Post)	Registered Mail	Courier Service
Peninsular Malaysia	RM144	RM161	RM192
East Malaysia	RM168	RM185	RM258

Name: _____

Salutation: Mr / Ms / Mrs / Dr / Prof _____

Age: _____ Sex: ☐ M / ☐ F

Company: _____

Designation: _____

Mailing Address (Hse/Off): _____

Postal code: _____

Telephone: (H) _____

Telephone: (O) _____

(H/P): _____

Email: _____

I/C No.: _____

Payment by (Please tick whichever applicable):

☐ Cheque Name of Bank: _____ Cheque No: _____

☐ Money Order Money Order No: _____

Signature: _____

- An eligible subscriber can win only one prize in the LUCKY DRAW. Prizes cannot be exchanged for cash.
- Should stocks run out, HWM Malaysia reserves the right to change the gifts with any other item/s of equal or similar value.
- Free gifts applicable to residents of Malaysia only.
- Please allow 4 weeks for processing.
- All checks must be crossed and made payable to: **Blu Inc Media Sdn Bhd**
- **GUARANTEE!** You may cancel your subscription in writing and receive a refund on unmailed issues minus RM35 for cancellation and processing charges.
- Receipt will be issued on request only
- All magazines will be sent out separately to subscribers

Please send in your subscription accompanied with payment to:

Blu Inc Media Sdn Bhd (7408-K)

Lot 7, Jalan Bersatu 13/4, Section 13, 46200 Petaling Jaya,
Selangor, Malaysia. Tel: 603 7952 7000 Fax: 603 7960 0148
Email: enquiries@bluinc.com.my

* Terms and conditions apply

The first Sony PlayStation Portable (PSP-1000) still looks very modern, but it's actually more than a decade old and can be considered a relic of a pre-connected, pre-cloud physical media age.



PHOTOGRAPHY VERNON WONG ART DIRECTION KEN KOH



Plaza Low Yat is the place to be...

As Malaysia's Largest IT Lifestyle Mall, this is the oasis where you can find the latest IT devices at competitive prices. A haven for the IT savvy and with a diversity of products and gadgets, this is definitely the place that will boost your excitement and you will be hard-pressed to leave unsatisfied.



LOWER GROUND (LG)

Restaurants & Dining,
Cafes, Pharmacy,
News-stand, ATMs

GROUND (G)

Branded IT Lifestyle
Stores, Telco Services,
Audio-Visual,
Restaurants & Cafés

UPPER GROUND (UG)

Cameras,
Communications,
Computers, Games,
Audio-visual, Beauty,
Wellness & Fashion,
Restaurants & Cafes,
Bookstore, Money
Changer

1st LEVEL (L1)

Mobile Phones, Mobile
Accessories & Clinics,
Telco Services, Cafés

2nd LEVEL (L2)

Computers &
Components,
Accessories,
Softwares, PC Clinics,
Gadgets

3rd LEVEL (L3)

Smartphone/Tablet Zone
IT Hypermarkets,
Computers &
Components,
Gadgets, Software
Accessories, PC
Clinics, Cafe.

4th LEVEL (L4)

IT Hypermarkets,
Service Centers,
Cafés, Offices, ATM



Information Technology

Mobile

Digital Cameras

Gadget

Gaming

Dining

www.plazalowyat.com



Like us at
[facebook.com/plazalowyat](https://www.facebook.com/plazalowyat)

Lenovo™ recommends Windows.

Lenovo™

LENOVO YOGA

A NEW WAY TO WATCH



LAPTOP



TENT



TABLET



STAND



INTEL INSIDE®, EXTRAORDINARY PERFORMANCE OUTSIDE.
LENOVO YOGA 3 PRO IS POWERED BY INTEL® CORE™ M PROCESSOR

FIND OUT MORE: ☎ 1800 88 7148 🌐 www.lenovo.com/my 📘 www.facebook.com/LenovoMY 🐦 www.twitter.com/Lenovo_MY

Available at:

LENOVO EXCLUSIVE STORES: Aidea.com Technology • Jin Sultan Sulaiman, K. Terengganu • Brightstar Computer S/B • Plaza Low Yat • Essential Action S/B (D-Mobile) • Plaza Low Yat • FCC Retail Sdn Bhd • Digital Mall • Mid Valley • Grex Multimedia • Skudai Parade, Johor • Danga City Mall, Johor • IT Comp Sales & Services S/B • The Mines Shopping Centre • Mind Maker S/B • ICT Komtar, Penang • Mobility Square S/B • One Utama • Pro Trade Marketing • Plaza Alam Sentral • SNS Network (M) S/B • Ipoh Parade, Ipoh • Plaza Low Yat

©2015 Lenovo. All rights reserved. Lenovo and the Lenovo logo are trademarks or registered trademarks of Lenovo in the United States, other countries, or both. Ultrabook, Celeron, Celeron Inside, Core Inside, Intel, Intel Logo, Intel Atom, Intel Atom Inside, Intel Core, Intel Inside, Intel Inside Logo, Intel vPro, Itanium, Itanium Inside, Pentium, Pentium Inside, vPro Inside, Xeon, Xeon Phi, and Xeon Inside are trademarks of Intel Corporation in the U.S. and/or other countries. Microsoft and Windows are registered trademarks of Microsoft Corporation. Every effort has been made to check for accuracy. Lenovo will not be liable for any inadvertent error which may occur in editorial or typographical errors in this advertisement. All images are for illustrative purposes only.

Lenovo Technology Ltd. 001-000000-01